IN RE: PETITION FOR SPECIAL EXCEPTION	*	**BEFORE THE**
	*	**BOARD OF APPEALS OF**
(632 Freeland Road)	*	**BALTIMORE COUNTY**
7th Election District **3rd Council District**	*	**Case No. 18-194-X**
OneEnergy Development, LLC ***Petitioner***	*	
	*	
Charles Gary Atkinson and Stephen Gordon Atkinson ***Legal Owners***	*	

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OPINION

This case comes before the Board on appeal of the final decision of the Administrative Law Judge ("ALJ") in which the ALJ granted a Petition for a Solar Facility by Opinion and Order dated April 3, 2018. The Petition was filed by Charles Gary Atkinson and Stephen Gordon Atkinson and OneEnergy Development, LLC, (collectively, the "Petitioner"). Protestants, Freeland Legacy Alliance, Inc., Bobby Rohe, Don and Nadine Lentz, John M. Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois J. Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda and William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore (collectively the "Protestants") filed an appeal.

A *de novo* hearing took place before this Board over five days, on July 24 and 25, October 9, November 20, 2018 and January 15, 2019. Adam Rosenblatt, Esquire, Patricia A. Malone, Esquire and Venable, LLP represented the Petitioners. H. Barnes Mowell, Esquire, represented

the Protestants. People's Counsel also participated in the hearing. A public deliberation was held on March 7, 2019.

Factual Background

The subject property is located at 632 Freeland Road and consists of just under 100 acres+/- lying to the north of the intersection formed by the west side of Freeland Road and the north side of Oakland Road (the "Property"). It is zoned RC2. Both Freeland and Oakland Roads are designated scenic routes. The Property, which is improved by a single-family owner-occupied dwelling, was previously a farm but no farming activities presently take place there. The Petitioners are proposing to use 19 acres± for a solar facility on a relatively flat cleared area in the westernmost portion of the Property pursuant to Baltimore County Zoning Regulations ("BCZR"), Article 4F. The solar facility will generate no more than 2 Mw of AC electricity. The balance of the Property is largely cleared, with areas of slopes, wetlands, wooded areas and streams. These sensitive areas will be subject to protective environmental easements as required by Baltimore County regulations.

Solar Facilities Law

On July 17, 2017, the County Council enacted Bill 37-17 permitting solar facilities by special exception in certain zones, including RC2, RC4, RC5, and RC8. BCZR, §4F-102.A. The County Council imposed limits on the number of facilities per councilmanic district (*i.e.* 10 per district), and on the maximum area for each facility (*i.e.* the amount of acreage that produces no more than 2 megawatts alternating current (AC) of electricity). (BCZR, §4F-102.B.1 and 2.)

In addition to the special exception factors, there are 10 requirements set forth in BCZR, §4F-104.A:

1. The land on which a solar facility is proposed may not be encumbered by an agricultural preservation easement, an environmental preservation easement, or a rural legacy easement.

2. The land on which a solar facility is proposed may not be located in a Baltimore County historic district or on a property that is listed on the Baltimore County Final Landmarks List.

3. The portion of land on which a solar facility is proposed may not be in a forest conservation easement, or be in a designated conservancy area in an RC 4 or RC 6 Zone.

4. Above ground components of the solar facility, including solar collector panels, inverters, and similar equipment, must be set back a minimum of 50 feet from the tract boundary. This setback does not apply to the installation of the associated landscaping, security fencing, wiring, or power lines.

5. A structure may not exceed 20 feet in height.

6. A landscaping buffer shall be provided around the perimeter of any portion of a solar facility that is visible from an adjacent residentially used property or a public street. Screening of state and local scenic routes and scenic views is required in accordance with the Baltimore County Landscape Manual.

7. Security fencing shall be provided between the landscaping buffer and the solar facility.

8. A solar collector panel or combination of solar collector panels shall be designed and located in an arrangement that minimizes glare or reflection onto adjacent properties and adjacent roadways, and does not interfere with traffic or create a safety hazard.

9. A petitioner shall comply with the plan requirements of § 33-3-108 of the County Code.

10. In granting a special exception, the Administrative Law Judge, or Board of Appeals on appeal, may impose conditions or restrictions on the solar facility use as necessary to protect the environment and scenic views, and to lessen the impact of the facility on the health, safety, and general welfare of surrounding residential properties and communities, taking into account such factors as the topography of adjacent land, the presence of natural forest buffers, and proximity of streams and wetlands.

There are also provisions regarding maintenance of the facilities:

§ 4F-106. - Maintenance.

A. All parties having a lease or ownership interest in a solar facility are responsible for the maintenance of the facility.

B. Maintenance shall include painting, structural repairs, landscape buffers and vegetation under and around solar panel structures, and integrity of security measures. Access to the facility shall be maintained in a manner acceptable to the Fire Department. The owner, operator, or lessee are responsible for the cost of maintaining the facility and any access roads.

C. Appropriate vegetation is permitted under and around the solar collector panels, and the tract may be used for accessory agricultural purposes, including grazing of livestock, apiculture, and similar uses.

D. The provisions on this section shall be enforced in accordance with Article 3, Title 6 of the County Code.

A solar facility which has reached the end of its useful life must be removed in accordance with §4F-107.

In order to grant a request for a special exception under BCZR, §502.1, it must appear that the use for which the special exception is requested will not:

A. Be detrimental to the health, safety or general welfare of the locality involved;
B. Tend to create congestion in roads, streets or alleys therein;
C. Create a potential hazard from fire, panic or other danger;
D. Tend to overcrowd land and cause undue concentration of population;
E. Interfere with adequate provisions for schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements;
F. Interfere with adequate light and air;
G. Be inconsistent with the purposes of the property's zoning classification nor in any other way inconsistent with the spirit and intent of these Zoning Regulations;
H. Be inconsistent with the impermeable surface and vegetative retention provisions of these Zoning Regulations; nor
I. Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5 or R.C.7 Zone.

In *Schultz v. Pritts*, 291 Md. 1, 22-23, 432 A.2d at 1331 (1981), the Court of Appeals held that "the appropriate standard to be used in determining whether a requested special exception use would have an adverse effect and therefore should be denied, is whether there are facts and circumstances that show that the particular use proposed at the particular location proposed would have any adverse effects above and beyond those inherently associated with such a special exception use irrespective of its location within the zone."

The Court of Appeals in *People's Counsel for Baltimore County v. Loyola College in Md.* 406 Md. 54, 106, 956 A.2d 166 (2008) upheld that longstanding *Shultz* analysis, explaining that a special exception use has "certain [inherent] adverse effects....[which] are likely to occur". In its analysis, the *Loyola* Court observed that "[t]he special exception adds flexibility to a comprehensive legislative zoning scheme by serving as a 'middle ground' between permitted use and prohibited uses in a particular zone." *Id.*, 406 Md. at 71, 956 A.2d at 176 (2008).

The *Schultz* and *Loyola* Courts, and more recently in *Attar v. DMS Tollgate, LLC*, 451 Md. 272, 285 (2017) have expressly recognized that "[a] special exception is presumed to be in the interest of the general welfare, and therefore a special exception enjoys a presumption of validity." (See also *Loyola*, 406 Md. at 84, 88; 105 *Schultz*, 291 Md. at 11). Based on this standard, once an applicant puts on its *prima facie* evidence in support of a special exception, the opponents must then "set forth sufficient evidence to indicate that the proposed [use] would have any adverse effects above and beyond those inherently associated with such use under the *Schultz* standard." *Attar*, 451 Md. at 287. (*See Montgomery County v. Butler*, 417 Md.271, 276-77 (2010) (opponent must show "non-inherent adverse effects" to "undercut the presumption of compatibility enjoyed by a proposed special exception use"). (*See also*, *Clarksville Residents Against Mortuary Defense Fund, Inc. v. Donaldson Properties*, 453 Md. 516, 543 (2017) ("there

is a presumption that the [special exception] use is in the interest of the general welfare, a presumption that may only be overcome by probative evidence of unique adverse effects").

Motions to Dismiss

1. Improper Notice of Hearing Before the Administrative Law Judge.

The Protestants' argued in their Post Hearing Memorandum that the Petition should be dismissed or remanded based on alleged improper notice of the hearing before the Administrative Law Judge, because the petition was filed prior to the effective date of Bill No. 6-18, which strengthened the notice requirements set forth in the Baltimore County Code. The Board found that there had been substantial compliance with notice requirements, finding that there was notice in fact, based on the *de novo* hearing that took multiple days over several months and as evidenced by Protestants' attendance at those hearings, consistent with *Cassidy v. County Board of Appeals*, 218 Md. 418, 146 A.2d 896 (1958).

Evidence

Petitioner presented testimony from six expert witnesses, who testified on its behalf in the merits of the case as to every element required for a special exception for a solar facility in Baltimore County.

The first witness, Marni Carroll, the Director of Project Development for OneEnergy Renewables, was qualified as an expert in community solar facilities, site selection, site production, site management, and maintenance of solar facilities;

Ms. Carroll gave the Board an understanding of OneEnergy and its experience operating facilities, including its prior experience in Maryland and in locations across the country. Ms. Carroll submitted a PowerPoint presentation that provided information about the company and its relationship to the proposed lessee of the subject facility. She also described the materials and

panels that will be installed, and the studies performed to assist in finding a suitable location and to ensure that any impacts to surrounding properties will be minimized. She also provided testimony about the detailed analysis that takes place when choosing potential locations for solar facilities. The selection process involves screening potential site through a variety of criteria and maps, including historical status, glare studies, existence of wetlands, species of concern, topography, forest cover, and consultation with the Department of Natural Resources and the Federal Aviation Administration, and U.S. Fish and Wildlife Service. Only after identifying feasible sites does OneEnergy approach landowners with the offer of an arrangement, normally a lease, that would allow the landowner a stable means of supplemental income while allowing the continued ability to farm the remaining land if the landowner so desired.

As Ms. Carroll explained, the solar panels are nontoxic, nonflammable, and do not contain any cadmium. Through an industry-standard glare study, she was able to confirm that the proposed facility will not cause any glare on surrounding roads and properties. In terms of installation, the panels are mounted on galvanized steel posts and have an aluminum and steel frame to which they clip "like legos." The supporting posts are driven into the ground without any cement or permanent impact to the land. She explained that the land beneath the panels will be planted with pollinator habitat that absorbs runoff and provides the possibility for the production of agricultural products, such as honey. Ms. Carroll presented the Board with a small jar of honey produced at one her company's other facilities. The panels rotate with the sun and are approximately nine feet tall at the point of maximum rotation. The inverter makes a very low hum not audible at the property line, the facility does not have any smell, and only a handful of trips to the site per year are required for maintenance. Ms. Carroll explained that at the end of the lease, OneEnergy is required to remove all equipment to three feet below the ground and to

restore the ground to its previous condition. All of the materials can either be recycled or reused by the solar industry.

Ms. Carroll also stated that a seven-foot tall fence will enclose the site, and all equipment will be stored and housed inside the fence. A gravel road will provide access to the area, and all equipment is expected to be delivered during the first two weeks that installation commences on the site. Maintenance will occur on a regular basis, at least quarterly each year.

Petitioner then called David Martin, a vice-president of DMW, a licensed landscape architect in Maryland and Pennsylvania, who was admitted as an expert in landscape architecture and site planning with particular knowledge of the requirements for landscape plans and special exceptions in Baltimore County. Mr. Martin introduced photographs of the site, keyed to a copy of the site plan indicating where each was taken.

Mr. Martin testified that the goals for landscaping the site are to screen adjacent residential properties. Mr. Martin explained that the Department of Planning representative wanted to preserve select views from Oakland Road into the Property and instructed him not to propose an unnatural wall of vegetation along the road that could block any view. Much of the landscaping is concentrated around the seven-foot-tall fence that surrounds the proposed solar panels. Additional landscaping is proposed at the access road to the facility. Mr. Martin stated that initially, 2 ½ to 3" trees and 6' evergreens will be planted along Oakland Road, and these size trees exceed the plantings required under the Baltimore County Landscape Manual. Existing forested area provides screening from residential homes to the north of the Property, and Petitioner will install additional landscaping along the northern boundary of the Property to further screen the view from neighboring homes.

Matt Durette, a professional engineer, working for OneEnergy next testified in support of the special exception. Mr. Durette was accepted as an expert in mechanical engineering, solar design and siting of solar facilities.

Mr. Durette testified that the facility will consist of just under 14.5 acres within a special exception area approximately 19± acres in size. Specifically, the facility will consist of: (i) galvanized steel posts driven directly into the ground in a north to south orientation; (ii) an aluminum racking system placed on top of the posts; (iii) photovoltaic solar panels with an antireflective coating that are connected to the racking system; (iv) wiring connecting the panels to an inverter, transformer, and, ultimately, to external power lines; (v) fencing placed around the facility for security, and (vi) additional landscaping. No barbed wire will be installed on the fencing.

Petitioner is proposing a "single-axis tracker" panel array that is designed to move with the position of the sun to provide maximum exposure of the panels to the sun and decrease the area needed to generate the permitted amount of electricity. The panels are 3' by 6' in size, are no taller than 9' when they are tilted towards the sun, and are constructed of an aluminum frame and a glass top designed to minimize glare. Mr. Durette confirmed that there are no fossil fuels, toxic chemicals, or radiation associated with the solar facility. Rainwater is sufficient to clean the panels, so no chemicals or other substances are used on them. Mr. Durette also testified that the risk of fire from the panels is "unlikely". On being questioned on cross-examination, Mr. Durette explained that the tracker motors are also solar powered.

Eric Hadaway, also of DMW, appeared on behalf of Petitioner, and was accepted as an expert in environmental regulation, analysis and evaluation of soils in Baltimore County. Mr. Hadaway testified that there are no environmentally protective buffers on the Property, but if the

solar facility is approved, Petitioner would subject sensitive areas to forest and stream buffers. He confirmed that there are non-tidals wetlands on areas of the Property outside the special exception area. Mr. Hadaway explained that Petitioner performed and obtained approval of a wetland and forest stand delineation and a steep and erodible soils analysis. There are streams that generate a forest buffer on the eastern half of the Property 740 feet away from the proposed facility. The newly established buffers and additional landscaping will offer protection that does not currently exist for these resources.

Mr. Hadaway also stated that there would be a stormwater management plan and measures installed on the site, as required by Baltimore County, and that Baltimore County had already approved the concept stormwater management plan for this project. Final approval of stormwater management will take place at the permitting stage of this project.

Mr. Hadaway opined that the various environmental measures being added on-site and the extent of undisturbed vegetated areas outside the special exception area would protect the Property from any negative environmental impacts.

Mr. Hadaway also provided testimony regarding an offsite stream located approximately 1,000 feet south of the proposed facility, which, at that distance, would not be negatively impacted.

On cross-examination Mr. Hadaway explained that the extent of soils analysis was limited to wetlands delineation. He also explained the multiple techniques available to control storm water management stabilize soils and increase absorption, including non-rooftop disconnects, new grasses, pollinator planting and seed mixtures that provide persistent vegetation throughout the seasons.

Mitch Kellman testified on behalf of Petitioner, and was accepted as an expert in Baltimore County land planning and zoning, with particular knowledge of the requirements for seeking and obtaining special exceptions in Baltimore County.

Mr. Kellman testified about the site location, size and zoning of R.C. 2. He confirmed that the only relief Petitioner sought was for a special exception. Mr. Kellman explained that the solar field will not be visible from Freeland Road because of a nearly 100' rise in elevation from that road with an intervening stand of existing trees. He also testified to specific zoning requirements for a solar facility in the R.C. 2 zone: that the use is permitted by special exception; that there were fewer than ten such facilities in the Third Councilmanic District where the Property is located; that there are no agricultural or rural legacy easements encumbering the Property; that the Property does not have an historic designation; that the proposed facility is not in a forest conservation easement; that the above ground components are at least fifty feet from the tract boundary; that all structures are less than twenty feet in height; that Oakland Road, a scenic road, will be screened.

Mr. Kellman also explained that on May 2, 2018, the plan had been submitted to the Development Review Committee and granted a limited exemption under Baltimore County Code §32-4-106(a).

Mr. Kellman provided additional testimony that the proposed facility meets the requirements of BCZR § 502.1. Specifically,

The solar facility will not tend to create congestion in roads, streets or alleys, since it will be unmanned and will only generate a handful of trips to the Property per year.

The solar facility will not create a potential hazard from fire, panic or other danger. As Mr. Durette testified, there is a strict electrical code governing the installation and the inverters

have a ground fault detection interruption system that would detect any fires and shut the equipment down, so there is little likelihood of fire. Additionally, Mr. Kellman confirmed that the Property is in close proximity (less than 1.5 miles) to a fire station in the unlikely event of a fire.

The facility will not overcrowd land and cause undue concentration of population. This requirement does not apply to a solar facility as it does not have any density. Because this use does not generate traffic or attract people, there is no overcrowding of the land or undue concentration of population.

The solar facility will not interfere with adequate provisions for schools, parks, waters, sewerage, transportation or other public requirements, conveniences, or improvements. The solar facility does not generate a need for public facilities of any kind. In fact, it assists with the provision of public services to the extent it adds electric power into the grid.

The solar facility will not interfere with adequate light and air. The components of the solar facility, which are approximately 10 feet in height and set back over 50 feet from any property line, will have no impact on adequate light and air.

The solar facility will not be inconsistent with the purposes of the property's zoning classification or the spirit and intent of the BZCR. Mr. Kellman opined that the use is expressly permitted by special exception.

The solar facility will not be inconsistent with the impermeable surface or vegetative retention provisions of the BCZR. Mr. Kellman noted that there are no impermeable surface or vegetative retention provisions applicable to the RC 2 zone. No clearing will be done in conjunction with the installation of the solar facility, additional plantings will be added, storm water management will be in place, and existing vegetation will remain. The special exception

area is the cleared area which was previously used for farming. There is no permanent disturbance of the soil because, after removal of the poles supporting the solar facility, the land may be used for farming or other purposes.

The solar facility will not be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers, and floodplains in the RC 2 zone. Mr. Kellman cited Mr. Hadaway's testimony that there are now no delineated or recorded wetlands or forest buffers to protect streams or other environmental resources on the Property. If the proposed solar facility is approved, however, buffers will be established and covenants recorded to protect the environmental and natural resources on the Property. Mr. Kellman noted that the facility will occupy only about 20% of the total acreage.

Mr. Kellman finally opined that the use at this location would have no greater negative impact than at another location in the R.C.2 zone than those inherent to the use.

After Protestants case closed, Petitioner offered David Straitman as a rebuttal witness. Mr. Straitman, a residential real estate appraiser was accepted as an expert in property valuation. He offered only one example of a solar facility (in Howard County) to demonstrate that the value of adjoining homes did not decline after the installation of the solar panels.

Mr. Kellman also testified in rebuttal, essentially affirming his opinion that the proposed facility met the requirements of the zoning regulation, both under Sections 502.1 and 4F.

Protestants' Case.

Protestants presented several witnesses whose testimony was directed at particular issues:

Theaux Le Gardeur testified as an expert in water quality, and serves as the Riverkeeper and Executive Director of the Gunpowder Riverkeeper, an organization devoted to monitoring and conserving the Gunpowder River watershed. He raised concerns that the Property drains

into the headwater of Bee Tree Run, a brook trout stream. Mr. Le Gardeur feared that the run off from the panels would change the hydrology of the stream and raise the temperature of the stream such as to threaten the brook trout. His testimony was that the cumulative impacts of the installation would degrade the trout stream since the panels don't allow water to infiltrate as slowly and would allow runoff to heat up the stream. Upon questioning, Mr. Le Gardeur could not identify any studies addressing nor could he quantify a safe distance from any stream on which to locate a solar array.

Ann Holmes Jones was offered but not accepted as an expert in agricultural preservation, the Board having found her substantial expertise as an independent consultant in agricultural and conservation easements not relevant to the issues before the Board. Nonetheless, Ms. Jones presented factual testimony regarding Agricultural Priority Preservation Areas and factors considered for easement purchase.

Meaghan Billingsley, the Assistant Director of the Valleys Planning Council ("VPC"), testified that even though the site is not within the geographic area of the organization, VPC had voted to appear in opposition to this facility as inconsistent with the R.C. 2 zone. She offered a resolution adopted by the VPC to that effect along with the requisite Rule 8 documents.

Nadine Lentz, a neighbor who resides on Orwig Road whose property adjoins the subject site, voiced her concerns that the installation would have a negative impact on the abundant wildlife in the area, such as snapping turtles, coyote, deer and eagles. She also feared increased lightning strikes because of the elevation of her property and the subject Property, though her house is some 300' from the proposed installation. Ms. Lentz also raised concerns that there would be chemical runoff from the panels that could degrade wells, that property values may be affected and that the installation may be visible from her home.

Lynne Jones lives at 815 State Church Rd., Parkton, MD. Her home is a 150 acre farm where her family has lived for 7 generations beginning in 1745. Ms. Jones testified individually and as President of Sparks-Glencoe Community Planning Council ("Sparks-Glencoe Council"). Sparks-Glencoe Council has 400 members and its boundaries run in a heart-shaped pattern from Hunt Valley in the south, to the Harford County/Baltimore County line in the east, to the Carroll County/Baltimore County line in the west. Not only is Sparks-Glencoe Council not a party to this case, more importantly, the Property, though near to, is not located within its boundaries. Those facts notwithstanding, Sparks Glencoe Council submitted a letter, signed by Ms. Jones, which described general opposition to solar facilities on farmland in northern Baltimore County. Ms. Jones' farm is located over five miles from the Property. She expressed her concerns about water runoff, flooding, impairment of scenic views and the negative impact on Targeted Ecological Areas and on the agriculture industry created by using farmland for solar facilities. Ms. Jones provided photographs of areas south of the Property on Heathecoate Road that are prone to flooding in heavy storms, but had no evidence if or how the solar facility would affect this existing condition. In support of her views, Ms. Jones attempted to introduce many articles she found on the internet, whose provenance the Board questioned. She also voiced some concerns regarding wildlife becoming entangled in fencing. Ms. Jones believes that solar facilities should be located in business and manufacturing zones. She is worried that the language in Bill 37-17 is not strong enough with regard to the issuance of a bond for maintenance and dismantling of the facility.

Lastly, Ms. Jones raised concerns that Petitioner's submission did not comport with Baltimore County Code §33-3-108.

Robert Rohe, Sr., a neighbor who resides on Orwig Road whose property abuts the subject site, testified that he maintains a Christmas tree farm on his property. As his trees are cut and sold over the next three years, he is concerned that the panels will affect the view from his deck. Mr. Rohe voiced concerns that the solar panels would be installed on prime agricultural soils and that, though his property sits at a higher elevation and upstream from the proposed solar array, the installation could create runoff that would affect wildlife and plantings in sensitive areas. He further voiced concerns that property values could be affected.

Kathleen Pieper lives at 4310 Beckeysville Rd., Hampsted, MD, which is 10 miles from the Property. Ms. Pieper presented Rule 8 papers for the North County Community Group, LLC for which she is the President ("North County"). North County is a volunteer organization of 500 members formed in 2015 with boundaries from the Maryland-Pennsylvania line in the north, York Rd. in the east, the Baltimore/Carroll County line in the west and Mt. Carmel Rd. in the south. The Property is within the boundaries of North County.

Ms. Pieper testified that she is familiar with the Property as a result of having worked with her former husband who farmed the Property at one time.

Ms. Pieper expressed concern that the special exception area is composed of prime and productive soils, and that solar facilities in general remove available farmland and crop production. Much of her testimony focused on 'Targeted Ecological Areas' or 'TEAs' which are designated as such because the land contains: forests; wildlife and rare habitats; non-tidal streams and fisheries; wetland adaptation areas; and tidal fisheries, bay and coastal ecosystems. Having done so, she explained when land is designated as having a TEA designation; it has the opportunity to receive state funding from Project Open Space ("POS"). Ms. Pieper testified that this Property is an unprotected TEA, and without any recorded conservation easement.

Ms. Pieper also testified that there are other sites available in Baltimore County that, in her opinion, might be more suitable for a solar facility because of their particular soil composition. She also suggested that Petitioner was seeking more acreage than it needs to produce 2 Mw of energy, based solely on other special exception cases in the County.

Ms. Pieper also felt that the security required by Baltimore County was not adequate and did not provide for soil remediation.

Paul Solomon was called by People's Counsel to testify, and was accepted, as an expert in planning, with a focus on rural zoning and land use planning. Mr. Solomon served as environmental planner for Baltimore County, retiring in 1992. He resides in New Freedom, Pennsylvania, approximately three miles from the Property. Mr. Soloman testified to the history of the R.C. 2 zone while he was employed by Baltimore County, his involvement in planning for the north part of the county, and in part, on his experience as a farm owner. He talked about the regional farming character and the quality of the farm land in the area, extending from Baltimore County into Pennsylvania and the effect of interrupting a 'critical mass' of farm land. It was Mr. Soloman's opinion that the solar facility conflicts with the legislative findings and purposes of the R.C. 2 zone as well as with certain provisions of the Master Plan 2020 concerned with farmland. He admitted on cross-examination that the Baltimore County statute does not prohibit solar facilities on prime agricultural soils. On cross-examination, he conceded that there is no prohibition to placing a solar facility on prime agricultural soils, and on re-direct conceded that the use is permitted by special exception in the zone.

John Altmeyer lives at 21722 Orwig Rd., Freeland, MD 21053 and adjoins the Property. He is a retired building inspector who worked for Baltimore County for 32 years. He was not offered as an expert in this case. Mr. Altmeyer calculated slope percentages for areas on the

Property using a topographical map to determine to his satisfaction whether the Petitioner's proposal complied with recommended grading for solar facilities.

Relying on Maryland Department of Environment ("MDE") Stormwater Design Guidance for Solar Panel Installations, Mr. Altmeyer testified that, in his opinion, if a slope is greater than 5% but less than 10%, the Petitioner would need "level spreaders" to catch the water runoff from the solar panels. He stated that if the slope is more than 10%, a full engineering study would have to be conducted and submitted to EPS. Mr. Altmeyer expressed his concern that the Site Plan does not show any stormwater management facilities.

Mr. Altmeyer also raised a concern that the panels would be visible from his house, and that the panels may contain carcinogens. He suggested that the proposed planting of Leland cypress would not survive winter weather.

Decision

As set forth above in BCZR, §4F-102.A, solar facilities are only permitted by special exception under the factors set forth in BCZR §502.1. The testimony of Mr. Martin, Mr. Durette, Mr. Hadaway, and Mr. Kellman support the Petitioner's position that the proposed solar facility would not be detrimental to the health, safety or general welfare of the locality involved. To the contrary, the Protestants' collective concerns are impacts, which are inherent with this particular use. The crux of Protestants' case rest on the fact that the facility will be located on farmland with soils highly desirable for agricultural use, an element that was not adopted by the County Council's enactment of Bill 37-17 which is codified in BCZR, Article 4F. Understandably, the Protestants want the land in RC zones to remain farmland.

However, it is beyond the jurisdiction of this Board to rewrite Bill 37-17 or Article 4F. Applying the standard in *Shultz*, *Loyola* and *Attar*, the Protestants were required to present

evidence that the adverse effects stemming from this solar facility, at this location, are unique and different than the inherent impacts associated with this use in general. We did not have such evidence here.

As described in detail above, Petitioner's experts, Mr. Kellman and Mr. Durette provided cumulative testimony that the solar facility would not create congestion in the roads, as it is not a use that generates traffic into or out of the Property. (BCZR, §502.1.B.) Further, Mr. Durette confirmed that there are no flammable materials used in this solar facility. There is fire station on Middletown Rd. (BCZR, §502.1.C.) As with the lack of traffic, Mr. Kellman repeated that this use does not generate people and therefore it would not tend to overcrowd the land or cause and undue concentration of population. (BCZR, §502.1.D.) Additionally, Mr. Kellman confirmed that this use does not interfere with schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements. (BCZR, §502.1.E.) To the contrary, the Board finds that it produces electricity, which benefits the surrounding community.

Mr. Martin confirmed that the height of the facility will be under 10 feet and would therefore not interfere with adequate light or air. (BCZR, §502.1.F.) The facility will stand in the cleared area of the Property, removed from any adjacent homes. Accordingly, the Board finds that shadowing and air circulation are not areas of concern.

As to the consistency of this use with the purposes of the RC zones and with the spirit and intent of the BCZR, solar facilities are consistent uses because they are temporary and are removed at the end of a lease term. There was much testimony and argument about removing 'prime and productive' soil from the agriculture industry. However, the evidence showed that the soil type remains the same before, during and after removal.

The County Council deemed solar facilities are uses consistent with the RC zone, provided they meet the special exception standard, as explained in *Shultz*, *Loyola* and *Attar*. The Protestants' argument that farming is the primary use and therefore is consistent with the RC zones, is an argument which should be directed to the County Council. This Board is not required to determine whether a solar facility is detrimental to agricultural uses. Our authority to approve this use is contained in Article 4F and §502.1 factors. Moreover, even if this Property contains 'prime and productive' soil (an alleged fact, which we are not deciding), the owner cannot be compelled to farm or to lease the Property to a farmer.

Mr. Hadaway explained that the use is consistent with impermeable surface and vegetative retention provisions of the BCZR because there will not be any clearing or grading of land, or no tree removal. Rain will propel off the solar panels and soak into the ground between the rows. Ms. Carroll noted that there would be pollinator species planted under the panels and year round vegetation. Even so, Mr. Hadaway added that the Department of Environmental Protection and Sustainability ("EPS") will determine whether any further storm water management retention measures are needed.

Finally, Mr. Kellman testified that this use, at this location, would not be detrimental to the environmental or natural resources of the Property, including the forest, streams, wetlands, aquifers and floodplains. Sensitive areas of the Property will be subject to protective forest buffer easements and forest conservation easements where none now exist, and the facility will not be placed within, or disturb, those areas.

Having analyzed the special exception factors, the requirements of BCZR, §4F-102.B.1 and BCZR, §4F-104.A. 1-9, must also be satisfied by the Petitioner. Mr. Durett testified that the

19 ± acre special exception area and 14.5 acre solar panel array is the minimum acreage needed to produce 2.0 megawatts AC of electricity. (BCZR, §4F-102.B.1.)

Based on the evidence presented to the Board, we find that there was no compelling evidence by the Protestants here, which contradicts the Petitioner's plan that 19± acre special exception area is the minimum area needed to produce less than 2 megawatts AC electricity. The Protestants did not have an expert testify on this issue. Accordingly, we find that the Petitioner has met this burden.

Mr. Kellman testified that the Property is not encumbered by an agricultural preservation easement, an environmental preservation easement or rural legacy easement, nor is it in a Baltimore County historic district or on the Baltimore County Final Landmarks list. BCZR, §§4F-104.A.1 and 2. In addition, as with the special exception factors, Mr. Kellman testified that the solar facility will not be located in the forest conservation easement or designated conservancy area. (BCZR, §§4F-104.A.3.) There was no evidence by the Protestants that contradicted either of these requirements.

As to the setback and height requirements, Mr. Kellman made clear that the facility at its highest peak will not exceed 10 ft. and will be located at least 50 ft. from the tract boundary. (BCZR, §§4F-104.A.4 and 5.) Accordingly, both the height and setback requirements have been met. There was no evidence by the Protestants that contradicted either of these requirements.

With regard to the requirement for a landscape buffer on the perimeter, Mr. Martin worked with the Department of Planning to preserve views from Oakland Road and to concentrate planting around the fence surrounding the panels. In addition, Petitioner will install additional landscaping at the access road to the facility and along the northern boundary of the Property to screen neighboring homes. We find that these requirements have been satisfied.

Additionally, there is a requirement that the solar panels minimize glare in order to prevent vehicle collisions and safety hazards. (BCZR, §4F-104.8). Ms. Carroll testified that Petitioner conducted a glare study applying industry standards and methodology developed by the Federal Aviation Administration. The glare study indicated that there would be no glare produced by the solar panels here. The Protestants did not present an expert to contradict this testimony. Thus, we find that requirement is satisfied.

Finally, the Site Plan must comply with BCC, §33-3-108. (BCZR, §4F-104.A.9). The Protestants argued that the Petition should be dismissed because the Site Plan failed to list each of the 18 elements in Subsection (c). In our review of BCC, §33-3-108, we find the language in Subsection (a) is unambiguous. That Subsection requires the Department of Environmental Protection and Sustainability ("EPS") (as defined in §33-3-101(f)), to approve the Site Plan. Further, Subsection (b) directs that the Site Plan shall generally include such information (graphs, charts, etc.) to enable EPS to "make a reasonably informed decision regarding the proposed activity." Additionally, a plan submitted to EPS for approval must also contain the information listed in Subsection (c).

In our view, the specific items listed in Subsection (c) must be considered by EPS when it reviews and approves the Plan under that Section, not this Board. The testimony of Mr. Kellman was that EPS' policy is that they will not approve a site plan until after the special exception relief is granted. We find his testimony to be consistent with the language in Section 33-3-105 (1) and (2) which provides that EPS is "responsible for enforcing the provisions of [Title 33]" and the Director of EPS "may adopt policies and regulations as necessary to implement the provisions of [Title 33]."

On this issue, there was no expert testimony presented by the Protestants to counter the evidence presented by the Petitioner. Given the express wording of Section 33-3-108 that EPS shall approve the Site Plan, and that EPS is responsible for ensuring that the Site Plan comply with both the general and specific requirements of Subsections (b) and (c), we find that the appropriate resolution for this Board is to place a condition in the Order reiterating the words of §4F-104.A.9, that the Petitioner shall comply with Section 33-3-108. To do otherwise would be to overstep this Board's statutory authority.

Conclusion

After reviewing all of the testimony and evidence presented, the Board finds that Petition for Special Exception pursuant to BCZR, Article 4F is granted.

ORDER

THEREFORE, IT IS THIS 10th day of May, 2019, by the County Board of Appeals of Baltimore County,

ORDERED, that the Protestants' Motion to Dismiss the Petition on the basis of inadequate notice, be and the same is hereby **DENIED** for the reasons set forth herein, and it is further,

ORDERED, that the Petition for Special Exception for a solar facility pursuant to BCZR, Article 4F as set forth on the Site Plan and the Schematic Landscape Plan be, and the same is hereby **GRANTED**, subject to the following conditions under the Board's authority in §4F-104.A.10:

1. Petitioner shall submit for approval by Baltimore County a landscape plan for the Property demonstrating appropriate screening and vegetation as required by the Landscape Manual and as set forth in the Zoning Advisory Committee Comments from the Department of Planning dated March 27, 2018.

The Landscape Plan shall take into consideration the residential properties adjoining the Property on the North and East, in an effort to minimize the visual impact of the solar facility on those residences.

2. The area occupied by the solar panel array shall not exceed 14.5 acres;

3. Petitioner shall utilize panels that minimize glare to prevent traffic or safety hazards; the height of the panels shall not exceed ten feet (10');

4. Petitioner shall install a 7 ft. high, security fence, without barbed wire, between the landscaping buffer and the solar facility as required by BCZR, §4F-104.A.7. Attached to the fence in a conspicuous place, while the solar facility is in operation, shall be the current contact information (name, address, telephone number, website and email address) of the operator of the solar facility.

5. Prior to the issuance of a building permit, Petitioner must satisfy the environmental regulations set forth in BCC, §33-3-108 pertaining to the protection of water quality, streams, wetlands and floodplains and obtain approval of the Site Plan from the Department of Environmental Protection and Sustainability as required in that Section.

Any petition for judicial review from this decision must be made in accordance with Rule 7-201 through Rule 7-210 of the *Maryland Rules*.

BOARD OF APPEALS
OF BALTIMORE COUNTY

Andrew M. Belt, Panel Chairman

Deborah C. Dopkin

Kendra Randall Jolivet

Board of Appeals of Baltimore County

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May 10, 2019

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RE: *In the Matter of: Charles Gary Atkinson and*
Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
Case No.: 18-194-X

Dear Counsel:

Enclosed please find a copy of the final Opinion and Order issued this date by the Board of Appeals of Baltimore County in the above subject matter.

Any petition for judicial review from this decision must be made in accordance with Rule 7-201 through Rule 7-210 of the *Maryland Rules*, **WITH A PHOTOCOPY PROVIDED TO THIS OFFICE CONCURRENT WITH FILING IN CIRCUIT COURT. Please note that all Petitions for Judicial Review filed from this decision should be noted under the same civil action number.** If no such petition is filed within 30 days from the date of the enclosed Order, the subject file will be closed.

Very truly yours,

Sunny Cannington /tez

Krysundra "Sunny" Cannington
Administrator

KLC/taz
Enclosure
Multiple Original Cover Letters

c: See Attached Distribution List

Charles Gary Atkinson
Stephen Gordon Atkinson
Travis Bryan, Chief Operating Officer/OneEnergy Development, LLC
Freeland Legacy Alliance, Inc.
Bobby Rohe
Don and Nadine Lentz
John M. Altmeyer
Ronald Danielson
Matt Hubbard
Connie Wood
Bob Clark
Slave Schener
Richard Ryan
Lois Jeanne Bowman
Scott Dykes
Beverly and Salvatore Scavone
Theresa and Christopher Norton
Kathleen and Christopher Marciniak
Christine Pignataro
Laverne Poe
Diana Householder
Theresa Sassler
Paul and Linda Hoeckel
Beverly Kram
Rhonda and William Rollins
Ed and Debra Myslinski
Lynne Jones
Debbie Frank
Patricia Trump
Kathleen Pieper
Robin Arrington
Teresa Moore
Lawrence M. Stahl, Managing Administrative Law Judge
C. Pete Gutwald, Director/Department of Planning
Michael Mallinoff, Director/PAI
Nancy C. West, Assistant County Attorney/Office of Law
Michael E. Field, County Attorney/Office of Law

BOARD OF APPEALS OF BALTIMORE COUNTY
MINUTES OF DELIBERATION

IN THE MATTER OF:	Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners OneEnergy Development, LLC – Lessee	18-194-X
DATE:	March 7, 2019	
BOARD/PANEL:	Andrew M. Belt, Panel Chairman Deborah C. Dopkin Kendra Randall Jolivet	
RECORDED BY:	Tammy A. Zahner, Legal Secretary	
PURPOSE:	To deliberate the following:	

1. Petition for Special Exception pursuant to BCZR § 4E-102 to operate a solar facility on property zoned RC-2.

PANEL MEMBERS DISCUSSED THE FOLLOWING:

STANDING

- The Board first discussed the Protestants' Motion to Dismiss or to Remand to the Office of Administrative Hearings which alleges posting and notice deficiencies due to the enactment of a new law which requires two signs to be posted on the property. The Board found there was substantial compliance with the posting requirements, further evidenced by the appearance of Protestants at the first day of hearing. The Board denied the Motion.

- The Board discussed the specific requirements of BCZR Section 502.1, Conditions determining granting of a Special Exception, as follows:

  A) The Board noted Protestants expressed concerns regarding run-off, flooding, real estate values, impact on protected species, and views, among others. The Board found no compelling evidence that the plan will be detrimental to the health, safety or general welfare of the locality.

  B) There was testimony that after initial installation, the solar facility would only be accessed a few times per year for maintenance. The Board found there would be no impact on traffic or roads.

  C) The Board found there will be no potential hazard from fire, panic or other danger.

  D) There will be no population increase as a result of the solar array, and accordingly will not overcrowd land or cause an undue concentration of population.

  E) The Board found the project will not have an impact on schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements.

  F) The Board found there will be no impact to adequate light and air.

G) There was a lot of testimony as to whether or not the project is consistent with the purpose of the property's zoning classification and with the spirit and intent of the Zoning Regulations. The Board noted that the County Council Bill permits solar facilities in the RC-2 zone as long as it meets the special exception requirements. There was testimony about land use and the importance of farmland and the RC-2 zone. However, there is no requirement that farm land must be farmed.

H) The Board discussed impermeable surface and vegetative retention. The Board noted there will be water diversion, and plantings will be located under the solar panels. The Board pointed-out that no storm water management facilities or buffers currently exist on the property, and if the special exception is approved, the Department of Environmental Protection and Sustainability ("DEPS") will require adequate facilities and buffers be installed.

I) There was testimony from the community expressing concern regarding impact to the environmental and natural resources on the site. The Board found the Protestants concern to be understandable, as they do not get to see the storm water management proposal or participate in the process. The proposed solar field is located several hundred feet away from any stream, but does contain steep slopes. The Board noted that the Petitioners will be installing buffers that currently do not exist, and they must rely on the expertise of DEPS to require appropriate measures to protect the environmental and natural resources on site.

- The Board discussed the requirements contained in BCZR Section 4F-104, as follows:
  - The solar facility is permitted in the RC-2 zone by special exception.
  - There was discussion regarding the maximum amount of land required to produce no more than two megawatts of electricity. The ALJ limited the area to 10 acres in his decision. However, the Board noted there was expert testimony presented by the Petitioners that due to the slope, orientation to the sun, etc., an area of approximately 14.5 acres is required.
  - Maximum of 10 per Council District. To the Board's knowledge, this limit has not been reached.
  - Additional requirements:

1) Not applicable. The land is not encumbered by an agricultural preservation easement, an environmental preservation easement or a rural legacy easement.

2) Not applicable. The land is not located in a historic district or on property listed on the Baltimore County Final Landmarks List.

3) Not applicable. The solar facility will not be located in a forest conservation easement, or in a designated conservancy area.

4) Meets the 50 ft. minimum setback requirement. Testimony was there will be a 70 ft. setback.

5) Meets requirement. The structure does not exceed 20 ft. in height, with testimony the solar panels will be under 10 ft. in height.

6) The Petitioner will be required to submit a landscaping plan, which must be approved by the County in accordance with Baltimore County Landscape Manual. The Board can ask for additional considerations to reduce the impact to adjoining residential properties.

7) The security fencing will be complied with, with no barbed wire.

8) The solar panels will be designed to minimize glare. There was expert testimony and a Glare Study presented by the Petitioners and the Board is satisfied this requirement has been met.

9) The Board discussed the requirement that the Petitioner comply with plan requirements of Section 33-3-108 of the County Code. The plan is required to comply with Section 33-3-108 in its entirety, and is not limited to subsection (c) which is a list of specific requirements. The Protestants expressed concern about whether or not the requirements of subsection (c) will be complied with. This section requires the plan to be approved by the "Department". The Board is not the "Department", DEPS is. The Board noted it is standing practice in Baltimore County that the "Department" won't approve a plan until zoning has been approved, then the project goes through the permitting process. The Board found the Petitioner met its burden.

10) The Board will impose conditions to minimize impact to adjoining residential properties.

- Maintenance, Bond and Removal Obligations. The community has concerns regarding the Company, i.e., Who are they? Will they be around? What happens when the Lease is up? The Board noted legislation requires a Bond be posted, and the Board has no power to expand this requirement.

CONCLUSION: After thorough review of the facts, testimony, and law in the matter, the Board unanimously agreed to GRANT the Petition for Special Exception with conditions imposed.

NOTE: These minutes, which will become part of the case file, are intended to indicate for the record that a public deliberation took place on the above date regarding this matter. The Board's final decision and the facts and findings thereto will be set out in the written Opinion and Order to be issued by the Board.

Respectfully Submitted,

Tammy A. Zahner

Tammy A. Zahner

Board of Appeals of Baltimore County

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January 18, 2019

NOTICE OF DELIBERATION

IN THE MATTER OF: Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
18-194-X 632 Freeland Road
7th Election District; 3rd Councilmanic District

AGENDA: Petition for Special Exception pursuant to the BCZR Section 4E-102 for a solar facility on property zoned RC-2.

4/3/18 Opinion and Order of the Administrative Law Judge wherein the Petition for Special Exception was GRANTED, subject to conditions.

This matter having been heard on July 24, 25, October 9, November 27, 2018 and concluded on January 15, 2019, a public deliberation has been scheduled for the following:

DATE AND TIME: **MARCH 7, 2019 at 9:00 a.m.**

LOCATION: Jefferson Building - Second Floor
Hearing Room #2 - Suite 206
105 W. Chesapeake Avenue

NOTE: Closing briefs are due on **February 22, 2019 by 3:00 p.m.**
(Original and three [3] copies)

NOTE: PUBLIC DELIBERATIONS ARE OPEN WORK SESSIONS WHICH ALLOW THE PUBLIC TO WITNESS THE DECISION-MAKING PROCESS. ATTENDANCE IS NOT REQUIRED AND PARTICIPATION IS NOT ALLOWED. A WRITTEN OPINION AND ORDER WILL BE ISSUED BY THE BOARD WITHIN A REASONABLE TIMEFRAME AFTER THE CONCLUSION OF THE DELIBERATION. A COPY OF THAT OPINION AND ORDER WILL BE SENT TO ALL PARTIES.

For further information, including our inclement weather policy, please visit our website www.baltimorecountymd.gov/Agencies/appeals/index.html

Krysundra "Sunny" Cannington
Administrator

c:	Counsel for Petitioner/Legal Owner	: Adam M. Rosenblatt, Esquire
	Petitioner/Legal Owner	: Charles Atkinson and Stephen Atkinson
	Lessee	: OneEnergy Development, LLC
	Counsel for Protestants	: H. Barnes Mowell, Esquire
	Protestants	: Freeland Legacy Alliance, Inc, Bobby Rohe, Don and Nadine Lentz, John Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore
	People's Counsel for Baltimore County	: Peter M. Zimmerman, Esquire

Jeff Mayhew, Acting Director/Department of Planning
Lawrence M. Stahl, Managing Administrative Law Judge
Michael Field, County Attorney, Office of Law
Mike Mohler, Acting Director/PAI
Nancy West, Assistant County Attorney

IN RE: PETITION FOR SPECIAL EXCEPTION	*	**BEFORE THE**
	*	**BOARD OF APPEALS OF**
(632 Freeland Road)	*	**BALTIMORE COUNTY**
7th Election District **3rd Council District**	*	
		Case No. 18-194-X
OneEnergy Development, LLC ***Petitioner***	*	
	*	
Charles and Steven Atkinson ***Legal Owners***	*	

RECEIVED
FEB 22 2019
BALTIMORE COUNTY
BOARD OF APPEALS

* *

POST HEARING MEMORANDUM

Petitioner OneEnergy Development, LLC, ("Petitioner"), by undersigned counsel, hereby submits this Post Hearing Memorandum and states as follows:

INTRODUCTION

This introduction will look familiar to at least two members of the Board, who also presided over a similar request made by Petitioner for a solar facility on another property in Baltimore County. New land uses, such as the use involved in this case, can alarm people simply due to the "fear of the unknown," even if the use, in reality, is quite benign. As a new use, solar facilities have attracted a group of "community activists" in northern Baltimore County, who have developed speculative theories about potential negative impacts on the farming industry, on soils, and on environmental resources. This group of activists had lobbied the Baltimore County Council and Planning Board for the imposition of prohibitions and restrictions on these facilities, particularly on properties that contain "prime and productive soils" or anywhere in the RC 2 (Agricultural) Zone. They were unsuccessful in these efforts.

Having failed with the Council, the activists, joined by People's Counsel, have, instead, taken it upon themselves to oppose all of the special exception requests for solar facilities before the Board of Appeals (the "Board"). To that end, they are fighting solar facilities on land that is not within the geographical boundaries of their groups, and is many miles from their homes.

Regardless of the unfamiliarity of a new special exception use, a generalized assertion that the use should not be permitted in a particular area of the County or in a specific zone is not sufficient justification for the Board to deny a special exception. The Board must apply the existing law and evaluate the use at *the particular location proposed* when considering the applicable legal test most recently explained in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017). Petitioner presented strong and substantial evidence in support of the Petition for Special Exception, and Protestants and People's Counsel's broad-brush attack on the use itself failed to rebut the evidence presented by Petitioner. Therefore, as explained below, the Board should grant the requested special exception.

BACKGROUND: THE PROPERTY AND THE PROPOSAL

Petitioner is proposing to install a solar facility on property known as 632 Freeland Road in the Freeland area of Baltimore County (the "Property"). The Property consists of just under 100 acres of land located on the west side of Freeland Road and on the north side of Oakland Road. (T. 339)[1]; *see also* Petitioner's Exhibit 1. The Property contains an owner-occupied single-family dwelling and is largely cleared and open in the center, having previously been farmed for many years. *See* Petitioner's Exhibit 2. Because of the shape of the Property and the existing grades,

[1] A copy of the transcript cited in this pleading is attached hereto and referred to as "T. __".

the solar facility will not be visible from Freeland Road. (T. 176). Its status as a "scenic road" therefore has no impact on this case.

Petitioner presented testimony from six expert witnesses, who touched on each and every element required for a special exception for a solar facility in Baltimore County:

- **Marni Carroll**: Expert in solar energy with particular knowledge of the site selection, site production, site management, and maintenance of solar facilities (T. 40);
- **David Martin**: Expert landscape architect with particular knowledge of the requirements for landscape plans and special exceptions in Baltimore County (T. 151);
- **Matthew Durette**: Expert mechanical engineer with particular knowledge of the requirements of the design of solar panels and requirements for siting solar facilities (T. 204);
- **Eric Hadaway**: Expert in environmental regulations with particular knowledge of the standards for approval in Baltimore County (T. 260);
- **David Straitman**: Expert real estate appraiser specializing in residential appraisals; and
- **Mitch Kellman**: Expert land planner with particular knowledge of the requirements for seeking and obtaining special exceptions in Baltimore County (T. 337-338).

Protestants largely relied on lay testimony from neighbors and community activists, who expressed their general fears and opposition to solar facilities in northern Baltimore County. They also called Paul Soloman, who was accepted as a planner who had worked with the RC 2 regulations until 1992. His testimony was heavily discredited on cross-examination.

Petitioner first called Marni Carroll, who gave the Board an understanding of OneEnergy and its experience operating facilities up to three times larger than the proposed facility in locations across the country. (T. 41-45). Ms. Carroll submitted a PowerPoint presentation that provided information about the company, the materials and panels that will be installed, and the studies performed to assist in finding a suitable location and to ensure that any impacts to surrounding

properties will be minimized. *See* Petitioner's Exhibit 4. She also provided testimony about the detailed analysis that takes place when choosing potential locations for solar facilities. (T. 55-58).

As Ms. Carroll explained, the solar panels are nontoxic, nonflammable, and do not contain any cadmium. (T. 55-60). Through an industry-standard glare study, she was able to confirm that the proposed facility will not cause any glare on surrounding roads and properties. (T. 68-71); *see also* Petitioner's Exhibit 8. In terms of installation, the panels are mounted on galvanized steel posts and have an aluminum and steel frame to which they clip "like legos." (T. 46). The supporting posts are driven into the ground without any cement or permanent impact to the land. (T. 44-46). She explained that the land beneath the panels will be planted with pollinator habitat that absorbs runoff and provides the possibility for the production of agricultural products, such as honey. (T. 48-49). The panels rotate with the sun and are approximately nine feet tall at the point of maximum rotation. (T. 43-44). The inverter makes a very low hum not audible at the property line, the facility does not have any smell, and only a handful of trips to the site per year are required for maintenance. (T. 66-68). At the end of the lease, OneEnergy is required to remove all equipment to three feet below the ground and to restore the ground to its previous condition. (T. 66-67). All of the materials can either be recycled or reused by the solar industry. *Id.*

Testimony from Matt Durette, an expert mechanical engineer, revealed that the facility will consist of just under 14.5 acres of fenced-in solar panels within a special exception area approximately 19 acres in size. (T. 216, 224). Specifically, the facility will consist of: (i) galvanized steel posts driven directly into the ground in a north to south orientation; (ii) an aluminum racking system placed on top of the posts; (iii) photovoltaic solar panels with an antireflective coating that are connected to the racking system; (iv) wiring connecting the panels

to an inverter, transformer, and, ultimately, to external power lines; (v) fencing placed around the facility for security (with no barb wire); and (vi) additional landscaping. (T. 204-215).

With respect to the panels, Petitioner is proposing a "single-axis tracker" panel array that is designed to move with (i.e., "track") the position of the sun to provide maximum exposure of the panels to the sun and decrease the area needed to generate the permitted amount of electricity. (T. 207). The panels are 3' by 6' in size, are no taller than 9' when they are tilted towards the sun, and are constructed of an aluminum frame and a glass top designed to minimize glare. (T. 208-209). Mr. Durette confirmed that there are no fossil fuels, toxic chemicals, or radiation associated with the solar facility. (T. 219-220). There are no chemicals or other substances used to clean the panels as they "self clean" with rain. (T. 220).

In terms of landscaping, David Martin confirmed that Petitioner worked with the Department of Planning and the County's Landscape Architect to develop a landscape plan that satisfies all requirements. (T. 162-170); *see also* Petitioner's Exhibit 11. Mr. Martin explained that the Planning representative wanted to preserve select views from Oakland Road into the Property and instructed him not to propose an unnatural wall of vegetation along the road to completely block any view of the panels. (T. 163-164). Much of the landscaping is concentrated around the seven-foot-tall fence that surrounds the proposed solar panels, and there is additional landscaping at the access road to the facility. (T. 164); *see also* Petitioner's Exhibits 1 and 2. While an existing forested area provides screening from residential homes to the north of the Property, additional landscaping was added along the northern boundary of the Property to further screen the view from neighboring homes. (T. 168).

As there is no development history for the Property, there were no delineated environmental resources or recorded buffers on the Property prior to this request for special

exception. (T. 261). Testimony from Eric Hadaway revealed that Petitioner performed and obtained approval of a wetland and forest stand delineation and a steep and erodible soils analysis; if the special exception is approved, the environmental resources will be protected for the first time with recorded buffers. (T. 266-267); *see also* Petitioner's Exhibits 1, 14. There are streams that generate a forest buffer on the eastern half of the Property 740 feet away from the proposed facility. (T. 267). The newly established buffers and additional landscaping will offer protection for these resources that does not exist currently. (T. 267).

With respect to stormwater management, Mr. Hadaway explained that there currently is no stormwater management on the Property, but, if the project is approved, stormwater management measures will be put in place for the first time. (T. 267). In fact, Baltimore County had already approved the concept stormwater management plan for this project. (T. 268). As admitted by opposing witness, John Altmeyer, final approval of stormwater management will take place at the permitting stage of this project. (T. 1219).

Mr. Hadaway also provided testimony regarding an offsite stream located approximately 1,000 feet south of the proposed facility. (T. 268-272); *see also* Petitioner's Exhibit 15. He stated that there will not be any negative environmental impact on the Property or the surrounding area, including that stream. (T. 87-288).

David Straitman presented an economic impact study to prove that the proposed facility will not have any negative impact on surrounding property values. *See* Petitioner's Exhibit 24. Two nearby neighbors, Bob Rohe and John Altmeyer, specifically based their assumptions regarding a potential negative impact on property values on the fact that they spoke with Mr. Straitman and he jokingly informed them that, if they do not see him at the hearing, it must mean

that his study showed a negative impact on property values. (T. 934, 1183). Unfortunately for the Protestants, Mr. Straitman did attend and testify in the case to rebut their testimony.[2]

Mr. Straitman analyzed: (1) the proposed use; (2) a comparable facility in Howard County; and (3) examples where homeowners voluntarily put ground-mounted solar panels on their properties. *See* Petitioner's Exhibit 24. Based on his economic analysis, he confirmed that the proposed use will not have any negative impact on surrounding property values. *Id.* While the Protestants hinted that they were going to call a real estate expert in this case, they simply provided testimony from lay witnesses who speculated that the facility would negatively impact property values. Mr. Straitman's testimony put this issue to rest.

Finally, Mitch Kellman provided additional testimony about the site plan and confirmed that the proposed facility meets the requirements of BCZR § 502.1, Article 4F of the BCZR, and all legal requirements for obtaining a special exception. (T. 341-358). The specific findings will be individually addressed in the argument section of this pleading.

In opposition, Protestants presented testimony from several nearby neighbors and a group of "community activists" who do not live anywhere near the proposed facility. They presented one expert, Paul Soloman, who testified to his experience with the RC 2 regulations (which experience does not extend past 1992 - 25 years before Baltimore County passed any solar legislation). As explained below, Protestants did not present any evidence upon which the requested special exception can be denied.

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[2] Mr. Zimmerman hinted at the hearing that Mr. Straitman should not be able to testify on rebuttal. As the party with the burden of proof, the Board routinely gives Petitioner's time for rebuttal in zoning cases. Here, not only did the Protestants mention property values as a potential cause for concern, they based their assumptions on a conversation that they had with Mr. Straitman. People's Counsel essentially forced Petitioner's hand and then argued that the response, which properly rebutted his evidence, was inappropriate. This argument was borne out of frustration, not law.

ARGUMENT

As the following demonstrates, Petitioner provided substantial evidence that the proposed solar facility meets the requirements of § 502.1 of the BCZR, Article 4F of the BCZR, and the applicable case law regarding special exceptions in Baltimore County.

I. COMPLIANCE WITH BCZR § 502.1

A. The solar facility will not be detrimental to the health, safety or general welfare of the surrounding locality.

a. "Surrounding Locality"

An important preliminary issue regarding this requirement is the meaning of "surrounding locality." Unlike most special exception cases, the primary objectors to this proposed facility are "community activists" (such as Lynn Jones and Kathy Pieper), who live many miles from the Property and expressed concerns regarding the potential impact that the facility would have on the overall farming industry rather than any impact on the properties immediately adjacent to the facility. They have made these same arguments in every case before the Board.

In fact, the lone expert witness for the Protestants, Mr. Soloman, was questioned point blank on this issue and confirmed that their concern is with the impact to the farming industry rather than the surrounding homes:

> Q: What is the impact of this that you're concerned about, what impact is this going to have on the neighbors?
>
> A: Again, you're disrupting and making the whole farm unusable because of what you're doing.
>
> Q: Okay. Who is that impacting?
>
> **A: It's impacting the farm community in general.**

(T. 1146-1147) (emphasis added).

In *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), the Court of Appeals interpreted BCZR § 502.1.A and confirmed that an applicant for a special exception "does not have the burden of establishing affirmatively that his proposed use would be a benefit to the community. If he shows to the satisfaction of the Board that the proposed use would be conducted *without real detriment to the neighborhood* . . . he has met his burden." *Id.* at 280 (*citing Schultz v. Pritts,* 291 Md. 1, 11 (1981)).

The phrase 'detriment to the neighborhood' "implies necessarily that the Board's task is to determine if there is or likely will be a detriment *to the surrounding properties*." *Attar*, 451 Md. at 280 (*citing Montgomery County v. Butler* 417 Md. 271, 305 (2010)). Thus, the *Attar* court confirmed that "within the context of a special exception, the 'neighborhood' means '**the surrounding properties**.'" *Id.* (emphasis added). In contrast, the definition of "neighborhood" within the context of a request for rezoning of property "will vary depending on the location involved" and "is not and should not be precisely and rigidly defined." *Montgomery v. Board of County Comm'rs*, 263 Md. 1, 5 (1971); *Woodlawn Area Citizens Ass'n v. Bd. of Cty. Comm'rs for Prince George's Cty*, 241 Md. 187, 198 (1966).

While the testimony of Ms. Jones, Ms. Pieper, and other "community activists" might have some application in a request for rezoning, *Attar* makes clear that the impact to consider in a special exception case is that to the surrounding properties. In fact, these Protestants are attempting to take the Board down the path specifically admonished in *Lucas v. People's Counsel for Balt. Cty.* 147 Md. App. 209 (2002).

In *Lucas*, the appellate court overturned a Board of Appeals decision that denied a special exception for a proposed airport on agricultural land based on general concerns related to "land around Helmore Farm," on "the horse industry in the area," on the "historical district," and on

"Greenspring Valley." *Id.* at 216-17. The court overturned the decision and held that the Board's broad interpretation of the "surrounding area" was insufficient to provide a court with the ability to assess the impact on "the immediate environment of the subject property." *Id. Lucas* makes clear that the Board cannot base its decision on the testimony of Ms. Jones, Ms. Pieper, and Mr. Soloman that relate to potential impact on the farming industry as a whole. To do so would constitute reversible error. *Id.*

b. The only impact to "surrounding properties" is that they may see the solar facility

Testimony revealed that the only potential impact to surrounding properties is that the facility will be somewhat visible from one or two of the homes to the north of the Property (through the existing and proposed trees). Ms. Carroll and Mr. Durette confirmed that there is little noise or traffic, no smell, no fossil fuels, and nothing toxic about the solar panels. Additionally, while there were some general concerns expressed regarding runoff from the panels, all of the neighbors on the north side of Monkton Road are higher in elevation than the proposed solar facility. *See* Petitioner's Exhibit 1. Finally, testimony of David Straitman, an expert real estate appraiser, confirmed that the proposed facility will not have any impact on surrounding property values. This completely rebutted the statement of several Protestants concerning potential impacts on the value of their properties. Based on all of this evidence and testimony, Mitch Kellman, accepted as an zoning and land planning expert with decades of experience in Baltimore County, confirmed that the request meets the requirements of BCZR § 501.2.A. As previously stated, there was no expert testimony from the Protestants to counter this evidence, and the bulk of Protestants' case inappropriately focused on speculation regarding potential impacts on the overall farming industry.

B. The solar facility will not tend to create congestion in roads, streets or alleys.

As Ms. Carroll and Mr. Durette confirmed, the proposed facility will be unmanned and will only generate a handful of trips to the Property per year. This requirement was met.

C. The solar facility will not create a potential hazard from fire, panic or other danger.

Ms. Carroll and Mr. Durette confirmed that they are not familiar with any solar facilities catching on fire. Mr. Durette explained that the inverters have a ground fault detection interruption system that would detect any fires and shut the equipment down. He testified that it would be unlikely for there to be a fire at the facility given the strict electrical code and installation of ground fault detection systems . (T. 211). Additionally, Mr. Kellman confirmed that the Property is in close proximity (less than 1.5 miles) to a fire station in the unlikely event of a fire. (T. 351-352). There was no testimony on this issue from Protestants beyond some far-fetched speculation, and there was no evidence that the proposed facility posed any danger above and beyond the low risk that is inherent to the operation of a solar facility.

D. The facility will not overcrowd land and cause undue concentration of population.

This requirement does not apply to a solar facility as it does not have any density.

E. The solar facility will not interfere with adequate provisions for schools, parks, waters, sewerage, transportation or other public requirements, conveniences, or improvements.

The solar facility does not generate a need for public facilities of any kind. In fact, it assists with the provision of public services to the extent it adds electric power into the grid.

F. The solar facility will not interfere with adequate light and air.

The components of the solar facility, which are approximately 10 feet in height and set back over 50 feet from any property line, will have no impact on adequate light and air.

G. The solar facility will not be inconsistent with the purposes of the property's zoning classification or the spirit and intent of the BZCR.

Petitioner anticipates that Protestants and People's Counsel will focus much of their argument on attempting to prove that the proposed solar facility is inconsistent with the purposes of the RC 2 zone, because, as they will allege, it will have a negative impact on the total amount of farmland and/or the availability of prime and productive soils in Baltimore County. Neither Article 4F, nor § 502.1, require Petitioner to disprove this assertion.

The County Council, in adopting Bill No. 37-17 and permitting solar facilities by special exception in the RC 2 Zone, has already determined that the use is generally compatible with the RC 2 Zone and that it is appropriate and acceptable for RC 2-zoned land. Once the Council determines that a particular use is permitted by special exception, the use "is presumed to be in the interest of the general welfare" and "enjoys a presumption of validity." *Attar*, 451 Md. at 285. Thus, it is not for this Board to second-guess the Council's determination that solar facilities are an appropriate use on RC 2-zoned land. Instead, the proper inquiry is whether the proposed use will "have any adverse effects above and beyond those inherently associated with such a special exception use irrespective of its location within the zone." *Id.* at 286.

With respect to any allegation of general inconsistency with BCZR § 1A01, Petitioner is making a good faith effort to further the agricultural use of the Property by planting pollinator habitat within the solar field and siting the facility in a central location that allows many acres of the Property to continue to be farmed during the life of the facility. "Prime and productive" soils are present within the special exception area, and, if the solar facility is approved and installed, those soils would not be available for traditional farming during the life of the solar facility. However, there was absolutely no evidence to demonstrate that the facility would cause any "harm" to the soils themselves. Removing land from potential agricultural production is an

expected consequence of installing a solar facility anywhere in an open field in the RC 2 zone. As confirmed by soil maps and the testimony of Paul Soloman, there are thousands of acres of prime and productive soil in northern Baltimore County, further illustrating that there is no special "above and beyond" harm on this Property. (T. 1140); *see also* Petitioner's Exhibit 21.

Further, the same results (unavailability of land and soils for farming) would occur if the property owner simply chose not to farm the property any longer and, instead, chose to let the land lie fallow, a choice he or she is fully permitted to make. Indeed, a property owner may have the most productive soils in areas perfectly suited for farming, but he or she cannot be compelled to farm that land for the benefit of the farming industry.

Finally, while a number of special exception uses are subject to the additional requirements contained in BCZR § 1A01.2.C,[3] that section was never amended to include "solar facility" as a listed use subject to the additional requirements. A reading of Bill No. 37-17 clearly confirms that, with the enactment of that legislation, the Council made no changes to § 1A01.2.C. The authority to approve this use and the particular requirements for such use are fully contained in Article 4F. No additional findings are required beyond Article 4F and § 502.1 in order to grant a special exception for a solar facility in the RC 2 zone.

[3] BCZR § 1A01.2.C. Uses permitted by special exception. The following uses, only, may be permitted by special exception in any R.C.2 Zone, provided that in each case the hearing authority empowered to hear the request finds that the use would not be detrimental to the primary agricultural uses in its vicinity; and, in the case of any use permitted under Item 29, further provided that the hearing authority finds that the use would support the primary agricultural use in its vicinity and would not itself be situated on land more appropriately used for primary agricultural uses.... (Emphasis added).

H. The solar facility will not be inconsistent with the impermeable surface or vegetative retention provisions of the BCZR.

There are no impermeable surface or vegetative retention provisions applicable to the RC 2 zone. Regardless, no clearing will be done in conjunction with the installation of the solar facility, and existing vegetation will remain and be supplemented.

I. The solar facility will not be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers, and floodplains in the RC 2 zone.

Petitioner presented the testimony of Eric Hadaway, who was accepted as an expert environmental consultant with decades of experience working in Baltimore County. As Mr. Hadaway confirmed, presently, there are no delineated or recorded wetlands or forest buffers to protect streams or other environmental resources on the Property. (T. 261). If the proposed solar facility is approved, however, buffers will be established and covenants recorded to protect the environmental and natural resources on the Property. (T. 266-267).

At the time this case was presented to the Board, Petitioner had already obtained approval from DEPS of their: (1) forest stand delineation; (2) wetland and forest buffer delineation, and (3) concept stormwater management plan. (T. 266-267). As Mr. Hadaway explained, the environmental resources on this Property (unlike many others) are hundreds of feet (740) away from the proposed facility and any runoff will have a chance to cool and dissipate before reaching the environmentally sensitive areas. (275-276). Although concerns related to environmental resources remained at the top of Protestants' list, Mr. Hadaway clearly explained that there will be no negative environmental impact on the Property or the surrounding area. (T. 287-288).

Finally, the parties disagree as to whether prime and productive soils constitute "environmental and natural resources" within the meaning of this regulation. Protestants admitted that they fought to have prime and productive soils added to the list of prohibitions in the County's

solar facility regulation, but the phrase "prime and productive soils" does not even appear in the adopted law. (T. 1046).[4] Ms. Pieper and Mr. Soloman flatly admitted that the solar law makes no mention of soils, TEAs, or requirements to continue to farm property. (T. 1046-1049). Additionally, Mr. Soloman admitted that there are thousands of acres of prime and productive soil in Baltimore County, further illustrating that there is no special harm on this Property when compared to other properties in the RC 2 zone. (T. 1140).

Regardless, the Board heard no evidence proving *any* harm to the prime and productive soils onsite. Ms. Pieper admitted that "it has yet to be determined what happens [to soil] when you build a solar facility and operate it there for a period of years." (T. 1050). She conceded that we simply do not know what, if any, impact these facilities will have on prime and productive soils. *Id.* On the contrary, Mr. Hadaway testified that planting of pollinator habitat and resting of the soil will actually improve its condition. (T. 278-279). Protestants speculated as to their personal fears regarding environmental impacts, but they did not provide any expert testimony to counter Mr. Hadaway.

II. PETITIONER DEMONSTRATED COMPLIANCE WITH ARTICLE 4F

Article 4F of the BCZR, adopted by Bill 37-17, provides additional requirements for solar facilities to be located in the RC 2 zone. The requirements are individually addressed as follows:

A. Requires Special Exception (§ 4F-102.A)

According to § 4F-102.A, solar facilities are permitted in the RC 2 Zone by special exception. The Property is zoned RC 2, and the solar facility is proposed to be located entirely within the RC 2 zone. *See* Petitioner's Exhibit 1.

[4] Two Council Bills have been introduced in an attempt to bar solar facilities on prime and productive soils, but were respectively withdrawn (Bill No. 9-17) and voted down (Bill No. 13-17).

B. Maximum Land Area for Facility (§ 4F-102.B.1)

Section 4F-102.B.1 provides that "[t]he maximum area permitted for a single solar facility is the amount of acreage that produces no more than two megawatts alternating current (AC) of electricity." Here, the area of the special exception is 19± acres, and the area of the solar array is 14.5± acres. (T. 216-217). As Mr. Durette explained, 14.5± acres is the minimum footprint necessary for this facility to produce two megawatts alternating current (AC) of electricity on the Property. (T. 217). If the array was smaller, Petitioner would not be able to generate two megawatts. *Id.*

Ms. Pieper attempted to refute this testimony by comparing the acreage and proposed output of some of the other proposed solar facilities in Baltimore County. However, she admitted that there are factors that go into the design and layout of solar facilities of which she is unaware. Mr. Durette is the only expert to provide testimony on this issue, and he stated, point blank, that Petitioner needs the area shown on the site plan to produce the permitted amount of electricity. (T. 217).

C. Maximum 10 per Council District (§ 4F-102.B.2)

Mr. Kellman testified that, in the 3rd Council District, the limit of ten (10) solar facilities has not yet been met.

D. Additional Requirements for § 4F-104.A: RC Zone Requirements

BCZR Section 4F-104.A outlines additional requirements for solar facilities located in an RC zone. Petitioner demonstrated compliance with each of these requirements:

1. **No Conflict with Preservation Easements.** Mr. Kellman confirmed that the Property is not encumbered by an agricultural preservation easement, an environmental preservation easement, or a rural legacy easement. (T. 341-342).

2. **No Historic Resources Impacted.** Mr. Kellman confirmed that the property is not located in a Baltimore County historic district, nor is the property listed on the Baltimore County Final Landmarks List. (T. 342).

3. **No Conflict with Environmental or Conservancy Easements/Areas.** Mr. Hadaway and Mr. Kellman confirmed that the solar facility is not proposed to be located within a forest conservation easement or in a designated RC 4 or RC 6 zone conservancy area. (T. 342).

4. **Compliance with Setbacks.** Mr. Kellman confirmed that the aboveground components of the solar facility, including solar collector panels, inverters, and similar equipment, will be set backs at least 70 feet from the tract boundary. (T. 342); *see also* Petitioner's Exhibit 1.

5. **Height Not Exceeded.** Mr. Kellman confirmed that no equipment associated with the solar facility will exceed 20 feet in height. (T. 342-343).

6. **Landscape Buffer/Screening Provided.** As Mr. Martin explained, Petitioner will provide a landscaping buffer around the perimeter of the facility in areas where it may be visible from an adjacent residentially used property or a public street. As Freeland and Oakland Roads are both Baltimore County scenic routes, the views from the roads (if any) will be screened in accordance with the Baltimore County Landscape Manual to the satisfaction of the County's Department of Planning and Landscape Architect. Mr. Kellman confirmed that the facility was designed and landscaped to minimize impact on the rural character of the surrounding area. (T. 344).

7. **Security Fencing Provided.** Mr. Durette explained that security fencing will be provided around the perimeter of the facility. At the request of Protestants, Petitioner agreed that the fence would not have barbed wire (or any rough, open edges) at the top and agreed to accept a condition to that effect.

8. **No Glare.** To demonstrate that the facility has been "designed and located in an arrangement that minimizes glare or reflection onto adjacent properties and adjacent roadways" and will not "interfere with traffic or create a safety hazard," Petitioner presented a glare study prepared by Marni Carroll. *See* Petitioner's Exhibit 8. Using the ForgeSolar software tool developed by the FAA and generally recognized in the industry, Ms. Carroll conducted a detailed, site-specific glare analysis. *Id.*; *see also* (T. 68-70)

Specifically, Ms. Carroll input the footprint of the array and some specific information about the array itself into the program and selected 12 observation points (including 4 points along Oakland Road) for analysis of potential glare. *See* Petitioner's Exhibit 8. The study projects that there will be "no glare at any of the observation points" at any time during the year. *Id*; *see also* T. 70. From the results of this study as well as her own observation of the site and the proposed layout, it was Ms. Carroll's opinion that the proposed solar facility has been designed to minimize glare onto adjacent properties and roadways and that it will not interfere with traffic or create a safety hazard. *Id.* This testimony was unrebutted.

9. **Plan Requirements of Section 33-3-108:** BCZR Section 4F-104.A.9 requires that Petitioner "comply with the plan requirements of Section 33-3-108 of the County Code." Notably, the regulation does not limit this requirement to BCC Section 33-3-108(c), it instead refers to the entirety of Section 33-3-108.

As BCC § 33-3-108(a) explains, a plan approved by "the Department" is required for development in Baltimore County. The "Department" is defined in BCC § 33-3-101(f) as "the Department of Environmental Protection and Sustainability." The Department is not defined as the "Administrative Law Judge" or the "Board of Appeals." Mr. Kellman confirmed that there is an entirely different checklist for filing plans to accompany petitions for special exception, and

that the site plan in this case completely satisfies the applicable requirements. *See* Petitioner's Exhibit 25.

In this case, Petitioner had already obtained approval from "the Department" of its: (1) forest stand delineation; (2) wetland and forest buffer delineation, and (3) concept stormwater management plan. (T. 286-287). Mr. Hadaway confirmed that those plans contain all of the information required by BCC § 33-3-108. (T. 287). There were no appeals to any of the Department's approvals. Accordingly, Petitioner presented uncontradicted evidence that this requirement has been met.

E. Maintenance, Bond, and Removal Obligations (BCZR §§ 4F-105 – 107)

Ms. Carroll presented an overview of OneEnergy, a national solar energy developer that has obtained approval for projects three times larger than the proposed facility and has generated enough solar energy to serve nearly 7,000 homes with clean, renewable energy. *See* Petitioner's Exhibit 4. Quite simply, this is an experienced national company that is adequately prepared to comply with the maintenance, bond, and removal obligations in the BCZR. Additionally, Mr. Martin and Mr. Kellman explained that additional securities will be required before any permits will be issued for this project. Although Protestants expressed some general concerns regarding the maintenance requirements, they offered no evidence to rebut this testimony.

CONCLUSION

For the reasons stated here, Petitioner respectfully request that the Board of Appeals grant the requested petition for special exception.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify on this 22nd day of February, 2019, that a copy of the foregoing Post-Hearing Memorandum was mailed to: H. Barnes Mowell, P.A., 16925 York Road, Monkton, Maryland 21111, Attorney for Protestants; and to Peter M. Zimmerman, People's Counsel for Baltimore County, The Jefferson Building, Suite 204, 105 W. Chesapeake Avenue, Towson, Maryland 21204.

Adam M. Rosenblatt

IN THE BOARD OF APPEALS FOR

BALTIMORE COUNTY, MARYLAND

In the Matter of	:	
CHARLES AND STEPHEN	:	
ATKINSON, LEGAL OWNERS,	:	CASE NO.
and ONEENERGY DEVELOPMENT	:	18-194-X
LLC, LESSEE	:	

VOLUME I

TRANSCRIPTION OF PROCEEDINGS

FROM AUDIO FILES

BE IT REMEMBERED that the above-entitled action came on for a Special Exception Hearing, on Tuesday, July 24, 2018, at 10:00 a.m., before:

ANDREW BELT (Chair)

KENDRA RANDALL JOLIVET (Exhibits)

DEBORAH DOPKIN (CourtSmart)

Transcribed by:

Paul A. Gasparotti II

year?

A. A year and a half, yes.

Q. And do you have any education in the field of solar energy?

A. So, it's embarrassing that I'm this old but I started my graduate degree in 2001 and there was not a program on renewable energy at that time, so I did an internship with Shell in their renewable strategy department, and I did another internship with the EPA looking broadly at renewable technology and compliance with state clean air standards and national greenhouse gas standards at that time. So yes, I made do, and knew that was my focus, and focused on that issue for three years.

MR. MOWELL: Thank you. That's all I have.

MR. BELT: Mr. Zimmerman, sir?

MR. ZIMMERMAN: I'll reserve for cross-examination.

MR. BELT: All right, fantastic, so

basically what we've heard, it is the My Cousin Vinny standard if you remember the movie, it doesn't come down to, training, knowledge and experience, you don't have to have all of them, you just have to have a sufficient amount of one of them to assist the fact finder. I think basically in her description she checks all the boxes, in that she knows much more than most in a very new field.

As for being an expert in solar energy, that is very broad. Mr. Rosenblatt, can you articulate something that can pretty much narrow it for this hearing so we don't go far afield with objections?

MR. ROSENBLATT: Absolutely, and we will be calling a mechanical engineer to explain how they're built and constructed, as well as environmental experts to talk about those issues, so she will narrowly be testifying about the company itself, the finding of this property, what these look like once they're installed, and

the impacts that can be expected from these facilities.

MR. BELT: So she's an expert in site selection, the management of site production, and site management and maintenance.

MR. ROSENBLATT: That sounds great.

MR. BELT: All right. We accept that for those limits as to this project. As for like the science and these things about solar energy, nobody's going to be inquiring about that, I guess.

MR. MOWELL: I'm satisfied.

MR. ZIMMERMAN: I'll have some, you know, questions about the scope of the environmental issues.

MR. BELT: Sure. I think we can proceed.

MR. ROSENBLATT: Okay.

BY MR. ROSENBLATT: I'm going to hand up an exhibit and ask that you, once everybody has a copy, if you could just kind of go through the

exhibit and give an overview of your company.

A. Sure. So --

MR. BELT: Let me just get this out to everyone, if you don't mind.

MR. ZIMMERMAN: I'm not sure I got a copy of the resume, did I get one? Okay. Sorry.

MR. BELT: What we could do with the exhibits when they come through, if we could start two here because she's putting one in the file and then she's a fact finder, and that's why she needs one for herself.

MS. MALONE: That's fine, I caught on to that.

THE WITNESS: So on the cover page you see who we are. Sassafras Solar LLC is the applicant that is fully owned by OneEnergy Renewables. On the first page there's a bit more about our company, OneEnergy Renewables. As I mentioned, we develop projects all over the country. We were founded a decade, almost a decade ago, and we've got 26 megawatts operating

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in Maryland. As I mentioned before, they benefit nonprofits, municipalities and educational institutions. And so you have some statistics there about the clean energy we generate, the global number of homes, equivalent planting of seeds that those solar operating facilities offset in greenhouse gas emissions. That's page two.

And then just a word about the name. The sassafras tree is found in the Gunpowder Falls Park and is a tree common to northern Baltimore that supports a variety of native birds and swallowtail butterflies and moths, that's why we chose it for this project.

On page three, and I won't read this all verbatim, but I wanted to have some pictures there again, as the attorney mentioned, just to give you a sense of what these do look like on the ground.

Image one, you see a solar panel, we'll get into the dimensions on the next page, but

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this is a crystalline solar, what is commonly called photovoltaic panel with crystalline solar cells. These are not considered hazardous to the environment, they're encased in glass with an antireflective coating on top, and they're meant to absorb sunlight, not reflect it.

So that's, moving on to the next page, solar is somewhat like a Lego set, you build a frame and then click the panels into the frame on top of it. The only impact on the ground is from the racking system's posts, so you see a side view in the image there. That's the post in the ground, similar to a leg of a table. These are about ten feet apart and they're driven in, so there's no cement or permanent structures underneath the ground.

BY MR. ROSENBLATT:

Q. Just for the record, are you referring to image two in your handout?

A. I am referring to image two, as well as the typical dimensions diagram below image two.

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That dimensions diagram shows the radius of the way the panel will track with the sun over the day. It's a very very slow process throughout six to eight hours, and it starts at a resting angle of 60 degrees and ends at the same resting angle in the other direction. The maximum height, as Adam described, is nine feet. We found a type of panel that will be shorter, it's actually shorter than the one that you see in the image there. And then the other dimension listed there, from six to seven, is just the width of the panel at its most flat.

Q. Is there any impact to the ground or the soil between the piles that you see in image two that are driven into the ground?

A. No, there's no impact to the area under the ground.

Q. If you turn to the --

A. Under the panels.

Q. If you turn to the page entitled inverters and transformers, can you explain to

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the Board what they're seeing on this page?

A. Yes. So in addition to the panels, these are really the only other pieces of equipment. It's why we build projects of this scale, because there's not a large substation or big additional infrastructure required. So image three is the inverter that then leads the underground trenches to image four, a transformer cabinet. That's where the energy is stepped up that goes -- there will only be one of the transformer cabinets shown in image four, and then ultimately all of the power is run to a utility, existing utility line owned by BGE. They will add some equipment to a pole like this one, and that's really it. So again, no large infrastructure improvements, and all of the equipment in image three and four are inside the fence. The equipment that will be added to the pole in image five will be along the side of the road.

Q. Can you describe a little bit about the

construction on the next page?

A. Yes. So image six is what I tried to describe as Legos, there's a worker putting in a panel.

Image seven is the only equipment that drives something into the ground, so it's just a pressure driven piledriver that puts in the galvanized steel posts that support the racking that the panels are on top of. Construction happens very quickly. In the first two weeks, the erosion control measures are set up and gravel put down the roads, as well as quick seeding cover like a fescue mix for erosion control. The, really the deliveries just occur in the first two weeks and then the panels are installed over a period of the next eight to ten weeks, and then we wait for BGE to flip the switch.

Q. What material are the access roads typically made of?

A. There's going to be one access road

which our engineer can describe further, but it will be gravel. That will be the only area that has gravel in the facility and we try to keep that road as short as possible, but it's required for fire and safety code.

Q. To that end, if you could talk about operational safety?

A. Yes. So on the next page, you have an image there from our Frederick County facility with actually some bee boxes in the front that are kept on site, but you have the fence there, it will be a seven-foot tall locked gate, and then you can see in the picture the panels inside the fence, and the pollinator grass mix underneath. So once the project has begun, the only people who will be on site will be once a quarter to check the equipment, and in the spring and the fall for mowing and vegetative maintenance.

We hope with -- one of the reasons we plant the pollinator meadow mix is it allows us

to visit the site less frequently, and we'll discuss our operating and management plan with the soil conservation district, and will provide emergency contact information to fire and police departments, and the site will be remotely monitored 24-7. There will be a local contractor on call if there are any problems.

Q. The fence that can be seen in image eight, is that similar to the type of fence that is proposed in this case?

A. It is. There is no barbed wire, it's required to be chain link according to electrical code, and it's required to be seven feet tall.

Q. Okay. You have a page about solar honey, if you can explain?

A. I do, and I brought some here. If you want to pass it around, you're welcome to pass it that way as well. Now you have to fight over it, absolutely, it is delicious. So this is an example of honey that was made from apiaries that were kept on a solar farm, and we're glad when we

can to contract with a local beekeeper, and the Department of Natural Resources actually has a program and a grant program to try and find foraging lands for bees, recognizing that they're becoming endangered and that colony collapse is a real issue in Maryland. So in addition to just the pollinator habitat, we really like that this can be a part of our project and it's something that we strive to do at all our projects. As I mentioned, we have 30 hives up at our Frederick County, Maryland site that will be creating honey next year.

Q. Let me ask you a little bit, and peoples counsel has intimated he wanted to hear an explanation of the various entities that are at stake here. So, we've heard the zoning applicant is OneEnergy Development LLC?

A. That's right.

Q. This presentation that's marked as Exhibit 4 mentions Sassafras LLC, and there's also a third entity known as, I believe, Clear

THE WITNESS: Yes. We also met with the planning department and they described the requirements to us.

MR. BELT: So the process and requirements of the bond, the restrictions of the bond?

THE WITNESS: Yes.

MR. BELT: All right, so I'll allow the answer to stand, and you can cross-examine as to the particulars.

THE WITNESS: I want to go back to describing who Clean Choice Energy is. They're a provider of subscriptions, so anyone with a BGE utility bill can sign up with them, they're what's called a retail energy provider. They have over 2,000 customers in Maryland and they are our partner. They will be the ones who, if anyone would like to sign up to participate in the program, they will manage the bills and contracts associated with that, just like you would with any other utility. They are governed

by consumer protection laws at the state level. Because they have those capabilities, they were the ones who applied and are listed in the community solar program, and the Public Service Commission regulates all of their activities.

BY MR. ROSENBLATT:

Q. Is it standard in your industry to partner with a company like Clean Choice Energy?

A. It is.

Q. I would like to talk to you about how you found this property. Can you explain that process? I know this is maybe the second of these cases that the Board has ever heard, maybe the first for some of the members, so how did this happen, how did you end up with this property?

A. Sure. So we, community solar is a new program, and the size of the facility is limited to two megawatts. We looked for room on the available utility lines, that's the first screen, luckily many of these things can be done

digitally. And then we look for what county might be, have codes with solar as an allowable use. In BGE territory there are only two counties that have solar as an allowable use, there are others that are considering it. I guess part of Montgomery County is a little bit of BGE and they're included as well.

So then we proceed doing a series of screens on I would say quite a number of potential sites, maybe around 25 to 50, and what we do, this is all before we reach out to the landowner is a number of screens, and I'm just going to write them down for myself as I go, so I don't forget them. So we consult with Department of Natural Resources, FAA, we use a tool to check if there's any glare, that was developed by the DOD and National Labs.

We look at the national wetlands inventory, we look at FEMA floodplain layers. We check with Department of Natural Resources on all species of state concern. Then we check with the

U.S. Fish and Wildlife Service, which does an online screen for national species of concern.

Q. So, are you looking for a certain amount of light that would be reached on a property?

A. Yes, I should back up and say that we look for a property that is away from wetlands, that is away from existing trees so there are no trees required to be cleared, so a flat open area with minimal slope, and as I went through, which I am -- I knew I was going to miss one -- Maryland Historic Trust, we also check with to make sure there are no impacts there. So we really try and even before we reach out to a landowner, find a site that has low concerns.

Then we go out and speak with a handful of landowners. At that point we had narrowed it down to under ten, and we look for someone who is interested in that income as a stable source that offsets the up and down nature of farming. We're happy that in this case, and in most cases, that income provides a way for folks not to succumb to

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real estate pressure, and a way to maintain farming on the rest of their property.

Q. When did you first contact the owner of this property?

A. In 2016.

Q. I'm going to hand you the next exhibit, and ask you, is the owner here today?

A. He was not able to be here today.

Q. Did he provide you with what I've handed you as our next exhibit?

A. Yes, he did.

Q. And is this, what exactly are we looking at?

A. We're looking at a letter from Mr. Atkinson. He describes that members of his family have owned the farm since 1810, so it's very important to him to continue to farm and keep his woods, and to keep the property in general. And it describes that he's in favor of working with us, decided to work with us, not just for the stable source of income but also to

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reduce dependency on foreign oils and the clean nature of the energy production. So in lieu of him being here, he submitted this statement to represent his feelings of why, and the history of the project, of the property, sorry.

MR. ZIMMERMAN: I'm not objecting to hearsay as long as we will have the same latitude given when the citizens testify.

MR. BELT: I will consider this letter the same way I would consider letters that would come from non-attending residents, and this Board will give it the weight that it deserves.

BY MR. ROSENBLATT:

Q. I was going to ask, under the terms of your lease, does the owner have any obligation in terms of maintenance, upkeep, eventual removal of the solar facility?

A. No. The owner also has no change in their property tax, we pay any property tax related to that area, and actually over the lifetime of the project, that will be a

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significant benefit to Baltimore County, it will be a higher tax rate that we will pay.

Q. So under the terms of the lease, is Sassafras Solar LLC solely responsible for the installation, maintenance and eventual removal of this facility?

A. Yes.

Q. Let's talk about community solar for a minute.

MR. BELT: Could we get a number?

MS. JOLIVET: That was Number 6.

MR. BELT: Has that been offered into evidence?

MR. ROSENBLATT: I was going to at the end offer everything. If not, I'd move Exhibits 1 through 6. There's going to be additional testimony about 1 and 2.

MR. BELT: Let's do 1 through 5 first. Any objections to 1 through 5 coming into the record? So admitted, 1 through 5.

Now let's deal with 6, which is the

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letter. I had stated my opinion, you're going to object for the record that it's hearsay?

MR. MOWELL: Just for the record, Your Honor, hearsay. Also, the owner I think is in a different position than the citizens. The owner is responsible under the law if the lessee doesn't maintain and decommission the property. I don't care what their lease says, the owner under the law is responsible.

Here we have a letter. I can't cross-examine Mr. Atkinson. Where is the other Mr. Atkinson? They're not that far away. I think they should be here, so I object to the letter being considered.

MR. BELT: Well, I can't compel their attendance, but it's the practice of this Board to accept citizen letters as citizen letters, and as the fact finder when going through the record, we take into consideration the ability of other parties to cross-examine those individuals. But since it's long been the practice to take

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official stance. We find, just so you're clear, that we do not give these papers the same weight as a Rule 8 declaration from an organization, but we will accept the letters for the limited purposes that they are usually accepted.

BY MR. ROSENBLATT:

Q. Let's talk briefly about the operation of this site. Once the panels are installed, how often do you anticipate there will be trips to the site?

A. Once every three months for regular maintenance, and in the early years, two to three times for vegetative maintenance, and then as needed.

Q. And what happens at the end of the project, is there any requirement under the lease to remove or otherwise restore the solar facility?

A. Yes. Under the requirement of the lease we're required to remove all equipment, most of it will be above ground, but the posts will be

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below ground, and one electrical line, so there's no cement or anything permanent. We will remove all of those facilities. There are recycling programs, national recycling programs for the panels and for the steel, so over 90 percent of the equipment will be repurposed. We are also, anyone with any entity that has a lease under the solar law in Baltimore County, is obligated to maintain a bond, and to remove the facility. That is part of the law that allows this use.

Q. You've talked about trips to the site. Let's talk about some of the other impacts. Do the panels make any noise?

A. The panels themselves do not make any noise. The transformer and inverter pad that is located really far off the road where the road ends in that exhibit, is the only area where there will be low hums, similar to a refrigerator, and you can only hear that if you're within 15 feet of the transformer pad, and the only people who will be that close to that

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pad will be maintenance folks, because the gate will be locked at all times.

Q. For the record, were you pointing to the access road on Exhibit 1-A?

A. Yes.

Q. How about smell, is there any smell of gas or any other smell that comes from this facility?

A. No, there are no smells associated with the facility.

Q. Okay. In terms of seeing the facility, you started to mention, did you actually perform a glare study to test the glare that would be coming from it?

A. I did. There are standard tools that were developed for the FAA by National Labs that evaluate glare off any surface. The nature of solar is it's designed to absorb light, not reflect it. We used the tools to predict in one-minute increments throughout the year if there's any momentary reflection. We evaluated

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seven of the neighboring homes and five points along the road.

Q. Let me show you, I'm going to hand you the next exhibit so you can point directly to this location. Let me ask you, is this a printout of the glare study that you performed?

A. Yes.

Q. Did you personally perform this?

A. I did.

Q. And can you explain the difference in the first image, the different locations that you studied for glare?

A. Yes. In the image you see, the blue is the outline of where the panels are. You see they're similar shaped to the blocks of panels in Exhibit 1-A. Then you see five, you see five points along Oakland Road, sorry, four points along Oakland Road, one point at the top along Orwig Road, and then seven homes that are adjacent. The tool does not take into account existing vegetation, and one of the reasons we

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chose this site is because there's, the residents are quite far from where the panels are planned, and there are large stands of existing evergreens and hardwoods that are, block the majority of the view.

In addition, we're not able to simulate what the project will look like with vegetation, but we will be planting dense areas of vegetation focused on those areas that might be most visible.

Q. Without even considering existing or proposed vegetation, did the study reveal any glare on the surrounding roads or residential properties?

A. It did not.

Q. What sort of long-term impact or benefit would this facility present for the citizens of Baltimore County?

A. So as I mentioned, the solar facility is not permanent, we remove everything at the end of the life of the facility, and the pollinator

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meadow species that we plant have roots that are roughly four feet deep. That helps retain water and decrease soil erosion. In addition, you'll hear later, we are far away from wetlands and streams, but as part of the project, those wetlands and streams will actually have a net benefit because there will be a permanent forested easement buffer created in perpetuity. Overall, the project is creating clean energy that decreases air pollution, and tax benefits to the county, as well as energy savings for those who sign up.

MR. ROSENBLATT: Thank you. I have no further questions.

MR. BELT: Before we proceed to cross-examination, briefly, Mr. Rosenblatt, can you proffer the experts that you're going to call after this witness as to what areas of expertise, if you know?

MR. ROSENBLATT: I do know the next witness will be a landscape architect to talk

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about landscaping and the witness following that will be a mechanical engineer that can explain the design, layout of the actual panels, what they're made of, et cetera.

MR. BELT: The only reason I do that is so that counsel can focus their questions of cross-examination on areas that this person has --

MR. ROSENBLATT: We also have someone, an expert in the environmental issues which I know there will be questions about.

MR. BELT: Just guiding us on, that's fine. You can proceed, Mr. Mowell.

CROSS-EXAMINATION

BY MR. MOWELL:

Q. Ms. Carroll, I'm going to first ask about this glare gauge analysis.

A. Uh-huh.

Q. What does this mean? What did you do, did you go out to the site?

A. I have been out to the site several

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times, but this is more of a data driven way to simulate the glare potential in one-minute intervals, so that it takes into account specific eye level and specific seasonality, and where the panels will be in relation to topography and the time of year.

Q. Well, you did this yourself, you said, right?

A. So, it's standard industry practice to use this publicly available tool that was developed by the National Laboratories and that is used by DOD and FAA. And I would also mention that in addition to FAA not having concerns about solar by providing this tool, they're, we -- sorry. We also reach out to them specifically, and have received letters of no hazard that we can provide if you like.

Q. I'm going to move to strike what you say the FAA's policy is, but what did you physically do to prepare this document? You didn't go to the site, did you?

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have.
MR. BELT: Mr. Rosenblatt, any redirect in light of those questions?
REDIRECT EXAMINATION
BY MR. ROSENBLATT:
Q. Is the corporate structure used in this case standard in your industry?
A. It is.
MR. ROSENBLATT: No further questions.
MR. BELT: Fantastic. All right, thank you, Ms. Carroll, you may step down.
(Witness excused.)
Okay. It is presently 12:37, we will be reconvening at 1:37 p.m.
(Recess from 12:37 to 1:37 p.m.)
MR. BELT: We're back on the record. Good afternoon, everyone. We are picking up with 18-194-X, the matter of a special exception. We are still in the petitioner's case, and you're invited to call your next witness.
MR. ROSENBLATT: Okay, David Martin.

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Whereupon,
DAVID MARTIN,
being first duly sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:
MS. DOPKIN: Please state your name and address for the record, and spell your last name.
THE WITNESS: My name is David Martin, M-A-R-T-I-N. I am a vice president at Daft McCune & Walker, and that's on Fairmont Avenue here in Towson.
MS. DOPKIN: Thank you. Please keep your voice up, we are recording it.
THE WITNESS: Will do.
MR. BELT: As Mr. Martin has testified before this Board before, I just want to before we get started, we have his CV, a proffer as to what you would like him to be designated an expert in, and then we can start with that.
MR. ROSENBLATT: Okay. Mr. Martin is a landscape architect and land planner who often

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times will testify to basically entire special exception cases, including the burden of proof. His role in this case is limited to being a landscape architect. He's going to show photos of the property and explain the landscape plan that accompanies this petition for special exception. That will be his only area of expertise today.
MR. BELT: Okay. Gentlemen, is there going to be voir dire for this witness?
MR. ZIMMERMAN: No, subject to the usual point that expert opinions have to be evaluated based on the (unintelligible) of the witness.
MR. BELT: Yes, sir.
MR. MOWELL: No, Your Honor.
MR. BELT: All right. Then he is so admitted, and we can go on from there.
DIRECT EXAMINATION
BY MR. ROSENBLATT:
Q. Okay. With who are you employed and what is your position?

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A. I am now employed with Daft McCune & Walker, I am a vice president there within their land planning and landscape architectural group.
Q. When you say now, when did you move to Daft McCune & Walker?
A. On June 5th of this year.
Q. And prior to that, can you explain yourself?
A. I was president of Martin & Phillips Design Associates here in Towson for 12 years.
Q. How often do you work with the regulations for landscaping in Baltimore County?
A. Almost daily.
Q. And are you appointed to the Design Review Panel in Baltimore County?
A. Yes.
Q. Are you the chairman of that panel?
A. I am.
Q. Now jump forward to working with this property. Are you familiar with the property at issue in this case?

MS. JOLIVET: The glare gauge study.

MR. ZIMMERMAN: Okay. So the Baltimore 350 was Number 7?

MS. JOLIVET: 7-A and B.

MR. ZIMMERMAN: Ah, that's where my numbering was off. Thank you.

MS. JOLIVET: You're welcome.

BY MR. ROSENBLATT:

Q. Let's talk about the overall goal for landscaping on this property. Can you explain the, what the goal was when putting together a landscape plan for the property?

A. Well, the goal is to screen from adjoining residential properties the visibility of these facilities, whether it's here or anywhere else. Pretty specifically, that it meets the landscape requirements of Baltimore County, and in this case it's how to treat adjoining residential properties.

Q. And the scenic road that runs along the southern edge of the property, how does that play

into the overall goal?

A. While it's a scenic road, no scenic view shed identified on this particular section of Oakland or Freeland.

Q. So how does the presence of that scenic road and the existing view weigh into your development of a landscape plan?

A. So the Office of Planning sensitive to the, there are two types of scenic views as they see it. One is an open view, which in this case this would be from the road, open fields, unobstructed, and then they have enclosed or encompassed views, which are focused to a specific, let's say a landmark or something of that nature, that's of interest visually in the area.

Q. What does planning want to see in terms of this type of view, which is open or expansive?

A. They want the open view from Oakland Road preserved, but they want the facility screened.

Q. So, are you aware in prior iterations of the landscape plan for this property, was landscaping proposed right on Oakland Road on the property?

A. Yes, initially there was, I call it a string of pearls of landscaping that went around the facility itself, and also there were some, I think three rows of mixed vegetation along Oakland Road with a gap in between them, so that was the landscape architect's perspective on this. The Office of Planning had a totally different perspective, they didn't want that, they want that open view maintained.

Q. So where is the landscaping concentrated on your current plan?

A. The landscaping is concentrated basically following the perimeter fence that was talked about before, and at the entrance, the little entrance connection, umbilical cord to Oakland Road, the driveway.

Q. I'm going to ask you to maybe stand,

I've given everyone an 11-by-17 copy of Exhibit 2, and Mr. Martin, if you could, just kind of go around the four sides of the solar array and anywhere else on the property where there's proposed landscaping, and just explain what, some of the landscaping that is proposed as part of this development.

A. Okay. On the plan, I'm tracing with my finger, and it is marked --

Q. Mr. Martin, would you like to use this handy pointer that Mr. Belt is handing me?

MR. BELT: It would be a shame to waste it.

MS. MALONE: It looks pretty too.

THE WITNESS: So Oakland Road is where I'm tracing the pointer as shown on the plan, the aerial photograph. By the way, the landscape plan has been superimposed on the county's GIS photograph, just to help show where the existing trees, resources are as well as the open fields, and then the landscaping itself. The proposed

service driveway into the solar array area is right where I'm pointing, it's just before the bend that Oakland Road takes, which was shown I think on the aerial photograph, I think the first, one of the aerial photographs showed that bend pretty prominently. So the entrance to that facility is there and it's been screened pretty heavily in that general area because again, it's just open field right now, and the object was to try to, since we're closest to the road, to draw that curtain fairly quickly.

Originally I had mentioned the row of landscaping that sort of followed the perimeter fence, and in discussions with Mr. Lippincott at the Office of Planning, and also Mr. Hermann, the landscape architect for the county, in this case and other cases, that that rigidity of a planting solution is not desirable in the rural areas. So this plan represents tieing, for example on the west side of the property there's an existing treeline that comes up, it goes through the

property towards the northwest and towards the center of the array area. And we took the edge along there and purposely in a more random naturalistic way, arranged the large deciduous trees, the flowering trees and the evergreen trees as you might expect to see them both in this connection and elsewhere around the property in a more naturalistic way.

And that also ties in, then, to the existing vegetation, and does a couple of things. One, it looks better, it doesn't look rigid, and two, it acts as a backdrop to the open area, which is what the Office of Planning was looking to see.

BY MR. ROSENBLATT:

Q. Where is the fence on this exhibit?

A. The fence is pretty much right inside the green circles that are shown on the plan, so the landscaping is on the outside of the fence.

Q. How tall would that fence be?

A. Seven feet.

Q. I should have asked before, but there's the bright green that is superimposed on the plan; what does that represent?

A. That represents both major deciduous trees which would be really large structured trees like oaks and maples, and sassafras and others, and then there would be an understudy of smaller deciduous trees like eastern redbuds or things like that that occur naturally up here in the northern part of the county, and then there would be a healthy dose of evergreen plant material to really maintain that screening throughout the year.

Q. Is there additional landscaping proposed on the northern end that's not immediately around the solar array?

A. Yes. Again, up here where the gap is shown, the upside down funnel I keep referring to, we propose -- there's an existing row of fairly large, both mixed evergreens and deciduous trees against this residential property, and

we're proposing in this case to further enhance that with, again, more of the same mixed large deciduous, smaller deciduous, and evergreens.

Q. Now following discussions with the county's landscape architect, Department of Planning, and presentation of this or a similar landscape plan, did the landscape architect issue a letter to Daft McCune Walker in this case?

A. Yes.

Q. This will be 11. Can you just briefly explain, what is the position of the landscape architect with respect to this layout?

A. Basically what he has said in this letter is although this is not a formal, because of the nature of this that we're in a zoning case, haven't really submitted a schematic in its formal version to the county for review, and no review fees were paid to do that, since that's the normal process in the county, but what he is saying is that conceptually for purposes of this plan, any other comments would be addressed when

a formal schematic landscape plan is submitted. However, he also has a caveat, provided the special exception is approved, but what he's saying is this is an approvable plan.

MR. ZIMMERMAN: Move to strike, speculation as to the interpretation.

MR. BELT: We will accept letters from the county agencies and others.

MR. ZIMMERMAN: Okay.

BY MR. ROSENBLATT:

Q. Now, what impact are you intending to have on the visibility of the solar array from Oakland Road?

A. Well, we're, the intent is to screen it almost completely based on the landscape installation, and the amount, sheer amount of the landscape material, and the county's requirements for that is at installation time, is a two-and-a-half to three-inch caliber tree at the time of installation for large deciduous trees, smaller than that for the smaller redbuds and

dogwoods and those kinds of things, and the evergreen trees have a minimum six-foot requirement at installation.

MS. DOPKIN: May I ask a question? I'm sorry.

MR. BELT: Sure.

MS. DOPKIN: Have the plans been changed since the March 30 hearing at all?

THE WITNESS: Yes.

MS. DOPKIN: Okay.

BY MR. ROSENBLATT:

Q. Can you explain, you started to, but explain exactly how it's changed, has the areas of the solar array that are screened changed at all, or how has it changed?

A. Well, we talked about the array has changed a little bit in its long axis north and south, however it skinnied up on the east-west, but it also has changed relative to what I described earlier as the string of pearls, which a more rigid landscape configuration, and

purposely exploded some of those corners in the frontage so that more plant material is pushed away from that fence line, and again, to get it to the point where it's more naturalistic in its look.

Q. Is any area of the array that was screened before March 15th, 2018, now not screened as part of this plan?

A. No, it's the same, the screening itself. I mean, that perimeter landscape material is still there. All we did is keep that perimeter, but then exploded stuff out and added more.

Q. Okay. In terms of added more, have you reviewed the counts, has Daft McCune Walker reviewed the amount of plants that will be required with the county's landscape architect?

A. Yeah, it's on the plan.

Q. Does the plan meet or exceed the number of required plantings for this property?

A. It exceeds them.

Q. Does the presence of a scenic road add

any additional required planting units?

A. No.

Q. You talked about the goal of how you impact an expansive or an enclosed view.

A. Right.

Q. Is there any other requirement in terms of landscaping that a scenic road places on an applicant?

MR. ZIMMERMAN: Move to strike, object to the speculative nature of the question.

MR. BELT: We don't have any testimony to strike, but repeat your, rephrase your question.

BY MR. ROSENBLATT:

Q. I'm asking -- it's always impossible to repeat the question you just asked, but we covered -- does the landscape manual have any, place any additional obligation on an applicant other than what you've already described when there is a scenic road present?

A. No.

Q. I'll ask you questions directly from the legislation. Is a landscaping buffer provided around the perimeter of any portion of the proposed solar facility that is visible from an adjacent residentially used property or a public street?

A. Yes, and I've described that on the north and the northeastern area, again referring back to the upside down funnel, it's screened there and that is an adjoining residential property without a forest patch already existing. And then we've actually, again, back to the array that follows the fence line, totally encompassed that area with plant material.

Q. Is the screening of the scenic road provided in accordance with the county's landscape manual?

A. It's in compliance with the CMDP as it relates to scenic vistas and scenic roads, and I don't think there's anything in the landscape manual per se that talks about how to treat that,

it's more in the CMDP.

Q. And is that where the different views are explained, described?

A. Correct.

Q. There was some mention that there's a second scenic road at play here; is that Freeland Road?

A. Yes.

Q. Can you point out where that is on Exhibit 2?

A. Freeland Road is at the bottom lower left corner of the property, and it's, the property owner's residence as was described earlier, is right where the pointer is, and then to the east of that is a pretty heavily forested tree patch, then there's an open area, and then there's a small gap just before Freeland Road intersects with Oakland Road.

Q. How does the grade work in that location?

A. Well, Oakland Road -- I mean Freeland

Road is downhill, you get on Oakland and you start to climb up as you progress to the northwest on Oakland, and there's also a small topographic rise right in that opening that I noticed when we were driving down here that you really can't see up over that, there's enough of a grade change, in roadwork it would be what we call a sight distance issue, for an over vertical sight distance issue.

Q. My question is from Freeland Road, is any part of the solar array going to be visible at all from the road?

A. No.

MR. ROSENBLATT: Thank you. I don't have any further questions.

MR. BELT: Okay, it's up to you gentlemen who would like to start.

CROSS-EXAMINATION

BY MR. ZIMMERMAN:

Q. Mr. Martin, you're the chairman of the Design Review Panel?

A. That's correct.

Q. How long have you been chairman?

A. Over six years.

Q. Is basically the planning office part of the staff that assists the Design Review Panel?

A. Well, they set it up, they take in the applications.

Q. And then you interact with them on a regular basis?

A. Sure.

Q. As part of the plan, the special exception area, what's the size of it?

A. I believe it was testified that it's about 18 or 19 acres.

Q. 18.92?

A. Close enough to 19 for me.

Q. So we're talking 19, so if it was mentioned earlier it was 18, actually it's really 19?

A. It is what it is.

Q. Do you know approximately what the

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Q. And they were allowed independently by the person?

A. Yes.

MR. BELT: Does this have to do with his qualifications as an expert? It's just voir dire. Anything further, Mr. Zimmerman?

BY MR. ZIMMERMAN:

Q. In terms of site assessment, were you involved in the site selection in this case?

A. I'm involved with site selection to the extent that a team needs my consultation for engineering challenges. I don't recall specifically being involved with this.

Q. Where you are involved with site selection, what is your role?

A. Only if there's a challenge with the site, and there wasn't an obvious challenge on this site, so I wasn't involved.

Q. You mean the site's ability to produce solar energy?

A. Yeah, to lay out the system.

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MR. ZIMMERMAN: Okay, thank you, that's all I have.

BY MR. MOWELL:

Q. Sir, have you ever been to this site?

A. Yes.

Q. How many times?

A. I was there once in the fall, October, mid October.

Q. You live in the state of Washington?

A. Yes.

MR. MOWELL: That's all I have, thank you.

MS. JOLIVET: I just have a question.

BY MS. JOLIVET:

Q. It says on your CV or resume that you are the manager of project development, and then you said today you're the director of engineering. Is that one and the same?

A. Yes. I was promoted since last year.

Q. Oh, you were promoted. All right. Well, congratulations.

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A. Thank you.

MR. BELT: Mr. Rosenblatt, if you could restate the areas in which you're offering him?

MR. ROSENBLATT: Sure. He is an expert mechanical engineer with particular knowledge of the design of solar panels and requirements for siting solar facilities.

MR. BELT: All right, I'm satisfied he is an expert in those areas, subject to cross-examination by opposing counsel.

BY MR. ROSENBLATT:

Q. We'll start from the beginning. Can you explain how solar panels work, without getting too technical?

A. Right, and I know Marni covered some of this so I will try to keep it brief, but we're working with photovoltaic technology, so similar to what you see on rooftops. So basically our modules are a series of crystalline silicon cells, 72 cells connected in series with glass on top, a plastic back sheet and an aluminum frame

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around the outside. Each module is synonymous with panel, I'm sorry if I get confusing, I'll try to say panel. Each panel is about six feet by three feet. So how it works, sunlight is converted directly to direct current electricity when it passes through the glass and hits the solar cell.

Q. How does it compare to a battery?

A. Similar to, it's similar to a battery, although it fluctuates, the energy, based on the amount of sunlight that's striking it at that time.

Q. So sunlight goes into the panel and what happens after that?

A. Sure. So every panel has two wire leads on the back, and one's a positive and one's a negative. The wire leads are plugged together to the panel adjacent to it. For this project we expect up to 28 panels to be plugged together in a series, that's what we call a string of panels, and there are a number of strings. For this

project they're combined in what we call a combiner box where direct current is brought into a small electrical enclosure with fusing and a disconnect. It's combined again at the inverter, which inverts the electricity from direct current to alternating current. Adjacent to the inverter is a transformer to step the voltage up to match the grid voltage, and the power is then injected onto the distribution line along Oakland Road where we're interconnecting, offsetting power that would normally be produced at a centralized power plant.

Q. So, does the energy that would come from a facility like this, does it supplement the energy that's already in the system?

A. Exactly, yes.

Q. What type of panels, can you explain the difference between fixed and tracking, and what type of panel you chose in this case?

A. Sure. You heard Marni mention the word racking and when we talk about racking, the

structure that the panels are mounted on, and generally there's two types. One is fixing the modules at a set orientation, usually at a tilt facing south, and there's a second type which is what we're using here, it's called a single axis tracking, racking system, and the panels are flat midday, and they're, you can see oriented in columns, and the column represents the tracking axis north to south.

MS. JOLIVET: Can you speak up please?

THE WITNESS: Yes. The panels are mounted in columns, which as you see on the exhibits, they run north to south, that's the tracking axis that the panels will roll east to west on. So in the morning, that column of panels will be facing east at about 60 degrees, it will be flat midday, it will roll to the west about 60 degrees in the afternoon.

Q. Why did you choose the panels, the tracking panels that move for this site?

A. We would like -- deploying the tracker

instead of the fixed racking system, we can produce more energy over the course of the day and the year out of each solar panel.

Q. If you were to use fixed panels, would you be able to generate the two megawatts of energy you're permitted to generate in Baltimore County in only this many acres?

A. No. We can produce more energy with less acres with the tracker.

Q. All right. Let's go through the size and composition of the actual panels. I think you already said what they're made of. How big are they, what are the measurements of each panel?

A. So, the panel is about six foot long by three foot wide.

Q. And when they tilt, how tall do they get, what's the tallest they get when they're most tilted?

A. At the 60-degree tilt, which is the highest, the leading edge, the top edge would be

eight to nine feet tall.

Q. Is there any structure -- you talked about a combiner box and an inverter and things like that. Is there any structure proposed as part of this facility that's taller than that eight to nine feet?

A. No.

Q. How are the panels installed?

A. So the mounting system, the tracker, the first step is to drive the foundations into the ground. The foundations are, they're an I-beam or C-channel or some type of beam that is vibrated and driven into the ground, there's no digging or anything like that. So we'll first install the foundations straight into the ground, and then the rest of the racking structure, and finally mechanically, the panels will be fastened onto the tracker.

Q. Do you know how far apart each of the piles that are driven into the ground are?

A. Not offhand.

Q. Is there between the piles, is there anything else that touches the ground?

A. No.

Q. How big are the holes that each pile makes?

A. Well, we're not digging a hole for the pile, it's a vary thin gauge metal, so there's very little volume of a hole that would be created by that.

Q. What happens at the end of the project when the piles are removed, what happens to the holes?

A. They could easily be refilled, or they will naturally close, they're so thin.

Q. You've laid this facility out in a north to south orientation. Is that for any particular reason?

A. Yeah.

Q. Be screaming when you're facing that way, so the microphone can hear you.

THE WITNESS: Okay. So, I guess maybe a

little bit about why we located the panels here and in this shape, and --

MR. ZIMMERMAN: Can the witness speak up a bit?

MS. JOLIVET: I'm going to give him a pointer too, hold on.

MR. ROSENBLATT: It's going to be hard for you, so seriously, yell, so that everyone can hear you. Otherwise, the microphone won't pick it up and no one can hear it.

MS. JOLIVET: And the record won't pick it up.

MR. ROSENBLATT: Right.

THE WITNESS: Okay. So when locating the modules, the array area here, we considered the site constraints that we had to work within, one was the slope, and the lowest angles on the site are in this region.

BY MR. ROSENBLATT:

Q. When you say this region, can you talk specifically about the plan, say north, south,

east, west, et cetera?

A. Yeah, kind of the center of this westernmost area. As you see can from the topography, the hill goes up along Oakland Road and this is actually the top of it, so this is the flattest area.

MR. BELT: The witness is, for the record, pointing to the shaded area on Exhibit 1-A.

THE WITNESS: We're also looking at existing trees so we're not too close to existing trees which could shadow the panels, and we're also trying to minimize the overall area of the array and maintaining a rectangular shape is useful to do that. So that's why we were able to use, why we planned to use this middle section here where the trackers themselves are about 275 feet long, contain three strings, and we needed three rows of them and one smaller tracker in this area to make a rectangle.

Q. When you say this area, are you talking

closest or farthest away from the road?

A. Yes, I'm talking the top of the hill away from Oakland Road up to what we were talking about as the upside down funnel, the top of that.

Q. Okay. I'm going to ask you where various things are that you've mentioned. So where is the access road compared to the solar facility shown on Exhibit 1-A?

A. The new access road, the turnoff is off of Oakland Road, and it runs on the west side of the array to our inverter and transformer pad.

Q. That's my next question. Where is the inverter going to be located?

A. The inverters will be located on this concrete pad which is located essentially within the array.

Q. And when you say this concrete pad, it appears on Exhibit 1-A that the access road sort of is a Y or a T at its final point?

A. Correct.

Q. Is that essentially where you're

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pointing?
A. Yep, the T turnaround or hammerhead turnaround, and then right at the end of that there's a pad, a rectangular hatched area that's the inverter and transformer pad.
Q. Do motors run each panel, is that how they operate?
A. Each tracker has a motor, some tracking systems have more than others, but there are motors that will drive the tracking array.
Q. Where are the motors located?
A. They will be located in the center, going north to south, they will be located in the center of the tracker.
Q. What are the lines that run horizontally through each of the rows of panels?
A. In this case with this tracker, it's the drive line connecting the rows.
Q. There's a line like that through each of your four rectangles shown on Exhibit 1-A. Are those all drive lines?

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A. Yes, four drive lines.
Q. Where does this connect to the utility grid?
A. Adjacent to the entrance point on the new access road, the utility, existing utility line runs along Oakland, and we're going to tap that three phase circuit, we're going to put the pole right next to the turnoff.
Q. On Exhibit 1-A, is there a location marked for a proposed utility pole?
A. I believe so. Yes, right there.
Q. And where is that located?
A. It's located just east of the access location.
MR. BELT: There's only one new pole?
THE WITNESS: Correct.
MR. BELT: And that pole is the same size, shape and material as existing poles on that road?
THE WITNESS: Correct.
BY MR. ROSENBLATT:

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Q. Are there any slopes greater than ten percent where the solar panels are proposed?
A. There are no slopes greater than ten percent in the solar array.
Q. Let's talk about some of the specific requirements of Baltimore County. Are all above ground components of the solar facility, including solar collector panels, inverters and similar equipment, set back at least 50 feet from the tract boundary?
A. Yes.
Q. How far is the closest that they get to the tract boundary?
A. The closest is, are a BGE switch, which is on a pad and they'll have a meter, and that's 72 feet from the tract boundary.
Q. Okay. We heard some questions about how many acres are involved in certain measurements. How big is the fenced area that is proposed on Exhibit 1-A?
A. The fenced area is 14-and-a-half acres.

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Q. And in your opinion, having laid out many solar facilities, is this the area needed to produce no more than two megawatts of alternating current electricity?
A. Yes.
Q. What would happen if you made the array smaller, would you consistently produce the two megawatts on this site?
A. No.
Q. What would be the impact on, if you were to move this facility to the west closer to the property boundary, what impact would that have on the amount of area you'd need or the efficiency of the system?
A. So, the main takeaway from that is if you move to the west, we're running up against the diagonal boundary and we would have to stagger the columns a bit more and we would waste more space within the area. We would also encounter steeper slopes.
Q. Okay. One thing I'm going to ask you to

do, I'm going to flip to Exhibit 1-B, and ask you to explain the difference between the original layout with the 12-foot tall panels and the layout that you're now proposing.

A. Sure. So, as a reminder, the dark panels are the original layout and the red panels are the new layout on Exhibit 1-B, and we switched from the taller tracker to the shorter tracker to improve visibility, and the length of the tracker is different than the previous tracker we were using, and so in order to get it to fit in this rectangular fashion, we elongated the array to the north and actually moved it, brought it in on the west.

Q. So from the old layout to the new layout, is the array longer or shorter when it's closest to Oakland Road?

A. Can you repeat that?

Q. Sure. The part of the array that's closest to Oakland Road, was it longer across under the old layout or the new layout?

A. It was wider on the old layout, narrower on the new layout.

Q. Is this new layout getting any closer to Oakland Road than it was before?

A. It's essentially the same, it does come a little bit closer.

Q. How about to the west, does it extend farther to the west in any way?

A. No. It actually pulls back on the western boundary.

Q. Let's talk about the composition of the panels in this facility. Are there any fossil fuels of any kind used for the motor, the inverter, any of these parts of the facility?

A. No, no fossil fuels, just the occasional lawnmower.

Q. Is there any toxic substance that is contained in the panels themselves or any of the equipment?

A. No.

Q. Is there any radiation given off from

the solar panels or any of the associated equipment?

A. No. The medium voltage line is underground, it will have less EMF than the line that's already on the street. The transformer is the same transformer you'd see at a school. It's far from any pedestrian, there's no contribution of EMF.

Q. The question was asked between the last hearing and this one about cleaning the panels. Can you explain what is used to clean the panels, is there soap or some other substance that's used in the panels need to be cleaned?

A. One benefit of this wet climate is that we have recurrent rains and heavy rains that will self clean the panels, and so no cleaning is required.

Q. If cleaning is required, is any soap or other chemical used to clean solar panels?

A. Cleaning is not planned. If it's necessary, it is only water that we use.

Q. How about, are these, is there anything that makes these panels likely to catch fire?

A. It's unlikely they could catch fire.

Q. Explain why.

A. Well, our electrical design will follow NFP-70, the National Electric Code. We'll go through during the building permit process intensive engineering review and review from the electrical inspector. The one protection that's built into the system is a ground fault detection interruption at the inverter level that can interrupt any electrical faults that may occur.

MR. ROSENBLATT: I don't think I have anything further on direct.

MR. BELT: All right. Who wants to go first this time? You, Mr. Zimmerman, okay.

CROSS-EXAMINATION

BY MR. ZIMMERMAN:

Q. So Mr. Durette, you have been with OneEnergy Renewables since January 2015, correct?

A. Correct.

Q. To what extent have you been involved in the site selection in Baltimore County?

A. I wasn't on the Baltimore County site selection team, I don't recall involvement.

Q. Were you, when did you first get involved relating to this particular site?

A. In 2017, preliminary design.

Q. Did you ever happen to review the option agreement between your company and the landowner?

MR. ROSENBLATT: Objection. This witness is not testifying as an expert in anything but mechanical engineering. We should not be revisiting this agreement or any involvement with the owner, or anything else.

MR. BELT: I concur, and also, this is really beyond the scope of our direct. I doubt this witness has anything to offer in that regard, so we're going to move on from licensing agreements with this engineer.

BY MR. ZIMMERMAN:

Q. Let me ask you a couple of questions

about the acreage. You mentioned the fenced area being approximately 14 acres, correct?

A. 14-and-a-half.

Q. 14-and-a-half. The special exception area, however, is listed as 18.92 acres, correct?

A. Uh-huh.

Q. So what is the other area, the other five acres or so?

A. The other area is included to provide flexibility in case the site constraints change between now and the detailed design phase, or if the county has any, you know, input into where, you know, panels might go, so we have flexibility built in. It's the same as, you know, a home construction or other type of development.

Q. In other words, the panels could fill up 19 acres based on this plan, depending on what happens?

A. No.

Q. The 14-acre area could move, could you relocate it?

A. If necessary. We have no intention to relocate. If necessary, we could relocate within the special exception.

Q. And that's what I'm asking. In other words, the extra five acres is in case you need to move the panels?

A. Yes.

Q. But as far as you know, the special exception area of the 19 remains the same, correct?

A. Could you rephrase that, or repeat?

Q. You're not changing, whatever happens, you're not changing the special exception area?

A. Correct.

Q. Does the site plan show the 19 acres, is it easy to see on the site plan? It's more than just where the array is, right?

A. Yeah, it's really easy to see. It's the bold hashed line and it's called out by a note here, proposed special exception area, 18.92 acres.

Q. Okay. So the west, we'll call it the west trapezoid shaped area that you have pointed to is part of the special exception area, correct?

A. Correct.

Q. And it's plausible depending on what happens, that the array could be moved over here, part of it?

A. We don't intend to, but --

Q. Depending on what happens, that could happen, yes?

A. It's possible, but we don't intend to.

Q. Otherwise you could take the 19 acres down to 14?

A. Exactly, yeah.

Q. I'm not trying to trick you, I'm just asking you. Now by the way, part of your background is in electrical engineering as well?

A. I'm a mechanical engineer.

Q. Is it necessary to have an electrical engineering licensing or background to deal with

speaking on farming or agriculture?

A. That's correct, I'm not an expert.

MR. ZIMMERMAN: That's all.

MR. BELT: Thank you. So Mr. Rosenblatt, if you could put on the record again your original proffer of expertise as to this witness.

MR. ROSENBLATT: Sure. I would ask that he be admitted as an expert in environmental regulations with particular knowledge of the standards for approval in Baltimore County.

MR. BELT: All right. Based on the training, knowledge and experience as presented by the witness, I'm satisfied as to his expertise in those matters and he will be so designated as an expert. Proceed, sir.

BY MR. ROSENBLATT:

Q. Mr. Hadaway, let's talk about your experience with this project. Have you been to the property before?

A. Yes, I have.

Q. More than once?

A. Yes, that's correct.

Q. How recently?

A. I guess within the past two weeks.

Q. Are there currently any established buffers on this property, including wetlands, forest buffer, any other kind of environmental buffers or easements on this property?

A. The buffers, wetlands, streams and floodplains depicted on our exhibit have all been accepted as being correct by Baltimore County, yes, but they have not yet been recorded or conveyed.

Q. Let's back up for a minute. Before this project, were there any established recorded easements, buffers, protection areas on this property?

A. No, there were not.

Q. As part of this project, did you perform a study of the wetlands to delineate the wetlands and to delineate the forest buffer that would be

imposed on this property if the project is approved?

A. Yes, we did.

MR. ROSENBLATT: Can you -- I guess probably the easiest way is if you step up to the board, you looked over an exhibit. We have a full size on the board that will be our Exhibit 14, and I have 11-by-17 copies for everyone.

MS. JOLIVET: Thank you.

BY MR. ROSENBLATT:

Q. Explain to the Board what you're showing on this plan, it looks to be the site plan, but there's some green or yellow, and some red lines. Explain your analysis to the Board.

A. All right. The heavy dashed line that I'm pointing to here that extends south of Freeland Road --

MR. ROSENBLATT: And keep your voice up for the record.

MR. BELT: Let the record reflect the

line three area.

THE WITNESS: That's right, we highlighted that line for convenience sake. That is the Baltimore County DEPS approved forest buffer limit. Within that area and designated with this pattern here, an outline and a dashed line, are nontitled wetlands.

BY MR. ROSENBLATT:

Q. So the record is clear, when you say with this pattern here, what pattern are you speaking of?

A. It's a wetland pattern that's common in the industry, it's typically to demarcate a sedge, which is a plant that commonly grows in wetlands.

Q. Is the marking on the plan essentially polka dot?

A. Yeah, this scale, it is pretty small, that's right.

Q. Okay.

A. Okay? As well, there are streams

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running through the subject property, they cross underneath Freeland Road and onto the property on the south side of Freeland Road. The hundred-year floodplain that is depicted on our plan was taken from the Federal Emergency Management Agency's flood insurance rate maps, the most current maps for Baltimore County.

I've also placed two labels and leaders on our plans in red. The label marked 740 feet plus-minus represents the closest proximity of the solar facility to the nearest regulated water resource, that being an onsite nontitled wetland. The other label leader in red noted as plus-minus 1,000 feet, marks the approximate distance to the nearest off-site water resource.

Q. Okay. Let's break this down for the Board. You say these have been approved by Baltimore County. First of all, is if this project is abandoned or denied, do any of these areas, does the owner have any obligation to put any of these areas in easement?

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A. He does not.

Q. And how did you come about delineating these areas as the environmentally sensitive areas on the property?

A. There are state, local and federal criteria for defining the limits of regulated nontitled wetlands. There are also criteria established for determining limits of jurisdictional streams. Again, the regulated floodplain was taken from the Federal Emergency Management Agency map. The buffers were determined by what the county defined as a steep slope erosion soils analysis, it's a process where we look at the soils, the vegetative cover type, the slope, proximity to resources, and the extent of the drainage area, to determine what is the appropriate and approvable forest buffer that would be established to protect the water resources.

Q. Do you physically walk the property to develop that analysis?

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A. Yes, we do.

Q. Does the county also walk the property at some point to see if they agree with your analysis?

A. Yes, they do, and they have.

Q. And --

MR. BELT: I'm sorry, could I ask you to speak up a bit?

THE WITNESS: Thank you, I will.

MR. ROSENBLATT: Okay.

BY MR. ROSENBLATT:

Q. And now that both you and the county have walked the property, has the county taken a position as to whether this delineation can and should be approved?

A. Yes, they have.

Q. So, has the forest buffer delineation been approved by Baltimore County?

A. Yes.

Q. Has the wetland delineation been approved by Baltimore County?

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A. Yes.

Q. If the project is approved and proceeds, will the area in green shown on Exhibit 14 be conveyed in permanent easement to Baltimore County?

A. Yes.

Q. How far is the nearest onsite wetland from the proposed solar facility?

A. Approximately 740 feet.

Q. Is that the number you marked in red?

A. That's correct.

Q. Okay. You can probably have a seat at the microphone. In addition to forest buffer and wetland delineations, is there currently any stormwater management at all on this property?

A. No.

Q. If the project is approved, will there be stormwater management on this property?

A. Yes.

Q. Has your firm developed a concept stormwater management plan for the proposed solar

facility?

A. We have.

Q. Has that concept stormwater management plan been approved by Baltimore County?

A. Yes.

Q. Is the layout which is shown underneath Exhibit 14, the layout that has been shown throughout the hearing as Exhibit 1-A, is that layout designed to meet the MDE standard for non-rooftop disconnect credit for stormwater management?

A. Yes, it has.

Q. Let's talk about the second red line, which you said delineates an off-site environmental resource. For the record, I'm speaking of on Exhibit 14, there's a red line almost due south that says 1,000 feet next to it. I'm going to show you the next exhibit.

There was some testimony at the hearing before the administrative law judge about a stream or other environmental resource to the

south of this property. Can you take the Board through these photographs and explain what you're showing here?

A. The first photograph depicts a storm drain inlet located on the northwest side of Oakland Road that captures surface runoff from the subject property. That storm drain extends underneath of Orwig Road and it discharges onto the neighboring property to the south.

Q. So, are you essentially standing on the southern boundary of the property looking south here?

A. That's correct.

Q. I think you said Orwig; do you mean Oakland Road?

A. Did I say Orwig? I apologize, I misspoke. It's Oakland Road, not Orwig Road.

Q. Okay.

A. If you'd like, I can point to the plan to show where this photograph is.

Q. Maybe that would be helpful to the

Board.

A. (Indicating.) That storm drain inlet is on the north side of Oakland Road approximately in the location on the plan that I'm pointing to.

MS. JOLIVET: Mr. Hadaway, is that marked on either the exhibit you're looking at or on Exhibit 1-A, is it identified?

THE WITNESS: No, that feature is not identified on either of those plans.

BY MR. ROSENBLATT:

Q. Why don't you put a blue mark on Exhibit 14 where that storm drain is located?

A. (Complying.) Should I put a circle?

Q. And it's a little bit hard to see from where the Board's sitting, but are you pointing essentially southwest of the solar facility on the north side of Oakland Road?

A. That's correct.

Q. Okay. So let's take a look at the second photograph, and ask you from where is this taken?

A. The second photograph, I'm standing on the southern edge of Oakland Road looking onto the adjoining property in the direction of flow. The downstream end of the storm drain is not visible in this photograph, but it discharges onto the grassy area that you see in the photograph.

Q. Are you essentially standing in the same line, just at the edge of the road here?

A. That's right.

Q. And which direction are you looking?

A. Approximately south-southeast.

Q. Okay. So what we're seeing in this photograph, is that on the subject property or a neighboring property?

A. That's on the neighboring property to the south.

Q. To the south of Oakland Road?

A. That's right.

Q. Now we see a, what looks to be some kind of ditch and a sign next to it; can you explain

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to the Board what that is?
A. The ditch is a grass drainage swale. The sign says, I didn't get close enough to it to see what it said.
Q. Okay.
A. I suspect it's a no trespassing sign, but again, from our vantage point, it appears that this is a grass drainage swale, a common agricultural practice in the northern part of Baltimore County.
Q. Is that a stream?
A. No, it's not.
Q. Let's turn to the next photograph, this is the third in this exhibit. Can you explain what you're showing here?
A. This is a GoogleEarth aerial photograph image of the southwestern portion of our subject property, which is the woods that you see on the southwest side of Oakland Road, and the square in this image is marking a spring sieve complex that is located on the neighboring property that marks

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the upstream limit of regulated waters on that property.
Q. Is the box that you have on this photograph, is that the same spot you're marking with your red line on Exhibit 14?
A. That's right.
Q. How do you know that that is the beginning of the stream?
A. When we were on the subject property conducting the nontitled wetland and forest delineation, we were able to, and again, acknowledging that sometimes in the field it's difficult to tell in terms of where you are with regard to property lines, we actually went to that area and confirmed that that was the upstream limit of regulated waters on the adjoining property.
Q. What is it about that area that tells you that that is the upstream limit of the regulated stream?
A. There is a strong spring sieve complex

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at that location, but what's visible in this aerial photograph, and if you note that the date of the photograph is the middle of April 2016, a time of year when leaves are not yet on the trees and you can see all the way to the ground. If I could refer you to the next photograph, which is a close-up image, you'll notice that there's a very obvious green color to the photograph there, that's skunk cabbage. Skunk cabbage is an obligant wetland plant that is typically present in north county nontitled wetlands of this type. We often use this type of satellite imagery to help us when we conduct our inhouse review of regulated water resources before we go into the field.
Q. So, is anything to the north of this spot towards the proposed solar array, is there anything in there, a stream, wetland or other protected resource?
A. No, it's not.
Q. Is this the closest spot to the south

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where there is a, quote, protected environmental resource?
A. That's right.
Q. And how far away is that?
A. Approximately a thousand feet.
MS. JOLIVET: Mr. Rosenblatt, may I ask a question for clarification? On this aerial photograph it looks as though there is a green swath between two wooded areas. Is the frontage along that green swath where your storm drain is located?
THE WITNESS: That's correct.
MS. JOLIVET: Thank you.
BY MR. ROSENBLATT:
Q. Based on the distance from this stream to the proposed solar array, do you have an opinion as to whether the runoff from the solar facility would have any impact on the stream?
A. Yes.
Q. What is your opinion?
A. The runoff generated by this solar array

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is going to have to travel several hundred feet minimum across farm fields, grass areas and forests before it enters into the receiving waters. A great deal of that water is going to be absorbed by these soils. Any particulate matter that may accompany is likely going to settle out as it flows towards these regulated water resources. In fact, that's the basis for stormwater management design for the non-rooftop disconnect, so negligible is my professional opinion in terms of the effect of any runoff generated by this facility on the nearby water resources.

Q. Assuming the runoff does reach this stream, will it be hot, warm, what temperature should be expected?

A. I would expect it would be the ambient temperature of the surrounding area at that point.

Q. Why is that?

A. If there were any opportunity for the

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water to heat up by hitting or bouncing off the solar arrays, given the distance between the solar array and the receiving waters, that water is going to mix with other water, it's going to have an ample opportunity to cool to ambient surrounding temperature.

Q. Is the area where the solar array is proposed currently being farmed?

A. Yes, it is.

Q. What impact does farming have on streams?

MR. ZIMMERMAN: Objection.

MR. BELT: Basis?

MR. ZIMMERMAN: It doesn't matter. We're not comparing a use by right with a use by special exception, that's not the criteria under Schultz versus Crist, it doesn't matter whether the use by right is at issue here, so it's totally irrelevant to compare the special exception use with farming use, that is to say farming is bad for the environment, and how great

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it is, what they're doing. It's totally irrelevant.

MR. ROSENBLATT: If I could be heard, the testimony below is that this is a beautiful stream in its current state and that this solar alternative energy field is somehow going to hurt the environment. So we're establishing under 502.1 that we're not going to have any negative environmental impact on the property, so its current state is very important.

MR. BELT: All right. I'm going to allow the question and then I'm going to allow all the parties in their briefs to argue how to interpret the answer.

MR. ROSENBLATT: Okay.

MR. ZIMMERMAN: Thank you so much.

BY MR. ROSENBLATT:

Q. So with the area currently being farmed, what impact does farming have on streams?

A. The historic intensive agricultural use of the property, although it is currently under

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minimum till agriculture, entails application of herbicides, pesticides and fertilizers on a regular basis. I think it's pretty common knowledge that some of those chemicals don't stay where they are placed and frequently make it into adjacent water resources. Bare soil, which is typical for a site like this, is, represents a more significant opportunity for erosion and off-site sediment transport, all of which contribute to the condition of the streams in this area.

Q. Is there currently any stormwater management feature in the area of the proposed facility that would guide or prevent these fertilizers, pesticides, et cetera, from flowing down towards the stream?

A. No, there's not.

Q. How about, what effect does road maintenance have, salting, sanding roads?

A. Well, that all gets into the stream too, so if it's getting into that storm drain, it's

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BY MR. ROSENBLATT:
Q. Mr. Hadaway, is this a map of a similar area of northern Baltimore County?
A. Yes.
MR. BELT: Do we have a number on that?
MS. JOLIVET: 17.
BY MR. ROSENBLATT:
Q. Is the property marked with an X?
A. Yeah, that's the approximate location.
Q. Let me ask you first, are you familiar with the term targeted ecological area?
A. I am.
Q. Is that a regulatory device? In other words, does that place any obligation on a landowner to do anything?
MR. ZIMMERMAN: Objection, calls for a legal conclusion.
MR. BELT: How about this? To your knowledge of the code of the state and county, are there specific requirements in conjunction with such a designation?

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THE WITNESS: No, there are not.
BY MR. ROSENBLATT:
Q. How would you characterize what the targeted ecological areas are?
A. The state has an interest in acquiring certain private properties and putting them in perpetual conservation easements. Many in this room are familiar with Program Open Space, Maryland Agricultural Land Preservation Fund, Rural Legacy and others. This is, these mapping overlays are I guess something of a wish list, that are intended to help target those areas where in the event that land were to come available and in the event that funds were available, this is where the state would like to spend its money in acquiring preservation easements or fee interests in properties.
Q. In all of your experience in Baltimore County, has a property's presence in a targeted ecological area placed any obligation on a project for being located in that area?

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A. No, it has not.
Q. Do these areas make up a significant percentage of northern Baltimore County?
A. Yes, they do.
Q. Let's move on to, one of the sections of the solar bill that was referenced yesterday is a requirement that an applicant comply with the plan requirements of Section 33-3-108 of the Baltimore County code. Are you familiar with that section?
A. Yes, I am.
Q. How are we addressing the plan requirements of Section 33-3-108 in this case?
A. We have submitted for review and approval, and have obtained approval of a wetland, stream and forest stand delineation plan that using the checklist, so to speak, enumerated in Title III for the plan requirements, meets all those requirements. The second plan that we've submitted for review and approval that also meets all of those checklist requirements is the steep

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slopes erodible soils analysis that I alluded to earlier, that the county evaluates to determine the extent of the regulated forest buffer on the site.
Q. Are those plans that you mentioned the same as the zoning site plan?
A. No, they're not.
Q. Are those plans that are submitted to Baltimore County's environmental department for review and approval?
A. Yes, they are.
Q. And have they been approved in this case?
A. Yes.
Q. Do those plans contain all of the information required by Section 33-3-108?
A. Yes, they do.
Q. Based on the evidence and testimony in this case, in your opinion, will the installation of the solar facility on this property have any negative environmental impact on the property or

surrounding area?
A. No, it won't.
Q. Does that include both the installation and the operation of the facility?
A. That's right.
MR. ROSENBLATT: Okay, thank you. Nothing further.
MR. BELT: Mr. Mowell, sir.
MR. ZIMMERMAN: I'm going to go first.
MR. MOWELL: Mr. Zimmerman is going to go first.
MR. BELT: That's fine.
CROSS-EXAMINATION
BY MR. ZIMMERMAN:
Q. Can you give us the approximate acreage for the so-called environmental area where the streams, the wetland and the forests are?
A. Not having measured it, but approximating it on what I'm looking at in front of me, sir, it's probably 25 or 30 acres.
MR. ZIMMERMAN: I'll ask you whether you

can corroborate or agree with a breakdown that I've done on the site plan acreage. Is it Peoples Counsel what, 4, Number 4?
MS. JOLIVET: Yes.
MR. ZIMMERMAN: And before I ask you a question on this --
MS. JOLIVET: Mr. Zimmerman, I apologize, it's Number 5.
MR. ZIMMERMAN: 5, yeah.
BY MR. ZIMMERMAN:
Q. So Mr. Hadaway, you've also mentioned that there's an area of cropland in between the proposed solar facility and the environmentally sensitive area; is that fair?
A. Yes, sir.
Q. I'm just trying to get some numbers. We know that the special exception is 19 acres, correct?
A. Approximately, yes.
Q. Approximately 19. And Mr. Martin indicated that the area to the north, that

triangle is about four acres. Do you recall that?
A. I wasn't here for that testimony, sir, sorry.
Q. You weren't here, all right. So I've done some scaling on the site plan to, indicating that Mr. Martin, that if he did testify to that, he appeared to be correct, if he said three to four acres, by scaling, and we could spend some time doing it, but it looks like about four acres. Does that look about right to you, as an expert, based on everything else you've seen? Would you like the scale?
A. Yeah. I don't think I could answer that question otherwise. For clarity, this is the area you're referring to?
Q. Yeah, the triangle at the north of this site just above the proposed solar array.
A. I would say you're in the neighborhood.
Q. Okay. Now the -- I made an effort to, also by scaling, figure out the approximate

acreage of the cropland that's left in between the solar array and the environmental as well as the residential area, and as you can see from my exhibit for ID, I come up with about 27 acres. Can you tell me whether that sounds right?
A. I want to make sure I understand the area on the site you're talking about.
Q. Well, I'm talking about basically everything to the east of the solar, southeast and south of the solar array from the east boundary of the proposed solar array to the rest, or excuse me, to the environmental area that you've marked in green, and then the remaining area would be the environmental area plus the residential area to the south. In other words, I'm trying to get an approximation of what cropland is left if the solar array is approved, and I've come up with about 27 acres simply by scaling the approximate boundaries. I just want you to let me know if that seems reasonable.
A. I'm not sure. There's, if I can expand

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purposes? It strikes me that this array sits at what is basically a plateau of two drainage areas, one opens to the southwest, the other to the southeast, and just out of curiosity because I don't think it has any significance, is that factored in to the calculation somehow, if you know?

A. The tilt is not. What is expected is the, how do I say this, the -- what is calculated is the surface area of the panel as if it were oriented straight up.

MS. DOPKIN: Okay, thank you.

MR. BELT: All right. Thank you, sir, you can step down.

(Witness excused.

MR. BELT: We're going to take ten minutes before we start our next expert, if that's all right with everyone.

(Recess from 11:25 to 11:45 a.m.)

MR. BELT: All right, everyone can be seated. We're back on the record.

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MR. ROSENBLATT: The next witness is Mitch Kellman.

(Discussion off the record.)

Whereupon,

MITCHELL KELLMAN,

being first duly sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

MS. DOPKIN: Would you please state your name and address for the record, and spell your last name?

THE WITNESS: Mitchell Kellman. I am employed with Daft McCune Walker, 501 Fairmont Avenue here in Towson.

MR. BELT: Mr. Rosenblatt, Mr. Kellman is going to be offered as an expert in?

MR. ROSENBLATT: As an expert land planner with particular knowledge of the requirements for seeking and obtaining special exceptions in Baltimore County.

MR. BELT: Mr. Zimmerman?

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MR. ZIMMERMAN: I know Mr. Kellman has testified many times, and I'll say what I say as usual, that zoning expert testimony is subject to factual reasons and --

MS. JOLIVET: Keep your voice up please.

MR. ZIMMERMAN: Yes, if I repeat myself, as with many if not all experts called in zoning cases, their opinions, their legal opinions are subject to review of their factual statements and sufficiency of their legal conclusions.

MR. BELT: All right. That being said, Mr. Mowell, sir?

MR. MOWELL: I don't have any objection to him being admitted as an expert.

MR. BELT: All right. As Mr. Kellman has been accepted as an expert before this Board on numerous occasions, and hearing no objection, he is so admitted as an expert in the areas previously stated on the record.

DIRECT EXAMINATION

BY MR. ROSENBLATT:

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Q. Mr. Kellman, we'll briefly go through this, but can you approach the exhibit marked as Exhibit 1-A, and because what I say in opening is not evidence, can you just briefly go over the site plan for the Board?

A. I can. May I approach the board?

Q. Start with address, acreage, zoning, et cetera.

A. The address is 632 Freeland Road in northern Baltimore County, so northern it adjoins or is close to the Pennsylvania line. The property is zoned RC-2 and it consists of approximately 99-and-a-half acres. As far as location, it is on the north side of Freeland Road and also the north side of Oakland Road.

Q. Does the proposed solar facility require any variances, landscaping waivers or any other relief other than the special exception?

A. It did not, and just to make note to the Board, the solar facility is on the northwestern portion of the site.

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Q. Have you been to the property?
A. I have.
Q. Have you driven up and down Freeland Road?
A. I have. I was at the site as late as Sunday morning.
Q. Been there multiple times?
A. I have.
Q. Have you stood on Freeland Road or driven by the site looking towards the solar facility?
A. I have. I went back and forth on Freeland Road east to west, west to east, driving, and also pulled over several times on the opposite side of Freeland Road looking into the site where the solar facility will be located.
Q. Okay. Is the solar facility, that area visible from Freeland Road?
A. In my opinion, it is not.
Q. Why is that?

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A. It's a good distance away, the grade is about a hundred foot climb up to the solar facility, and also because of the vegetation, vegetation around the site, vegetation, trees on one side of the property, vegetation and trees on the other side of the property.
Q. Let me ask you some of the solar specific requirements from the legislation. Are solar facilities allowed in the RC-2 zone?
A. They are by special exception.
Q. Are there fewer than ten approved solar facilities in the third counsel district for Baltimore County?
A. There is, and can I sit back down?
Q. I think so, sure, use the microphone?
A. Thank you, I just wanted to make sure I'm talking loud enough.
Q. Is the property encumbered by an agricultural preservation easement?
A. It is not.
Q. How about a rural legacy easement?

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A. It is not.
Q. Is it in a Baltimore County historic district?
A. It is not.
Q. Is any portion of the land on which the solar facility is proposed in a forest conservation easement?
A. It is not.
Q. Is this property in a designated conservancy area in an RC-4, RC-6 zone?
A. It is not and it's not in an RC-4 or RC-6, the property is zoned RC-2.
Q. Are all above ground components of the facility including panels, inverters and other equipment located at least 50 feet from a tract boundary?
A. They are, and they're approximately just over 70 feet to the tract boundary.
Q. Are all structures proposed as part of this facility less than 20 feet in height?
A. They are, and to add to that, the panels

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as revised, should be no taller than ten feet in height.
Q. Is Oakland Road a scenic road?
A. It is a scenic road.
Q. Are solar facilities prohibited along scenic roads?
MR. ZIMMERMAN: Objection.
MR. BELT: Basis?
MR. ZIMMERMAN: That calls for a legal conclusion. The question would be what is the relevant impact involving the proposed facility on the scenic road.
MR. BELT: Statutorily, sir, is there a statutory prohibition for development on a scenic road?
THE WITNESS: There is not.
MR. BELT: As to other effects there would be on the scenic road, it can be argued, but as to a specific statutory prohibition, there is not?
THE WITNESS: There's not a specific,

I'm going to say regulation, that prohibits solar facilities on a scenic road.

MR. ZIMMERMAN: I still object to relevance as well.

BY MR. ROSENBLATT:

Q. What does the solar bill say about scenic roads?

A. The bill states that if a solar facility is on a scenic route or view, then it must be screened.

Q. In your opinion, is this facility designed and landscaped to minimize impact on the rural character of the surrounding area?

A. In my opinion, it has been.

Q. Has your company worked extensively with Jim Hermann, the landscape architect in the Department of Planning to design this facility?

A. We have.

MR. ZIMMERMAN: I'm going to object to the continual leading. I realize you want to get it over with, but I mean, leading question after

leading question.

MR. BELT: Most of them are just a statutory checklist. If we get to the point that calls for a series of opinions and he's leading the opinion, please pipe up.

MR. ZIMMERMAN: And conclusory, that's all.

BY MR. ROSENBLATT:

Q. So, does Baltimore County designate view sheds in addition to simply scenic roads?

A. They do.

MR. ROSENBLATT: Let me show you --

MS. JOLIVET: Thank you.

BY MR. ROSENBLATT:

Q. Mr. Kellman, can you explain what the document is that I've just shown you?

A. Yes, this is a copy of the Baltimore County master plan that designates scenic views. It also has scenic gateways where your gateways are primarily located inside the URDL, and it also lists the major roads throughout the county.

Q. What do the arrows mean?

A. The arrows are the scenic views.

Q. Is this property in a scenic view shed?

A. Based on our site plan and the Baltimore County master plan, this is not located, our property is not located within a scenic view or view shed.

Q. Has this project been presented to the Baltimore County Development Review Committee?

A. It has.

MR. ROSENBLATT: Can you explain what -- what is the number?

MS. JOLIVET: 19.

MR. ROSENBLATT: Can you explain what has been marked as Exhibit 19 -- this is 20? One second, I just want to make sure the record is clear. This document is Number 20. Number 19 is?

MS. JOLIVET: The scenic gateways and views. Number 18 is the CV of Mr. Kellman.

MR. ROSENBLATT: Okay, so this would be?

MS. JOLIVET: This is Number 20.

BY MR. ROSENBLATT:

Q. Mr. Kellman, I've handed you a copy of what's been marked as Exhibit 20. Can you explain what this is to the Board?

A. Yes. This is a letter from the director of permits, approvals and inspections to myself indicating or ordering that a limited exemption pursuant to 32-4-106.A.1(6) of Baltimore County Code has been approved, and it's what we call an A limited exemption.

Q. What is the effect of an A limited exemption?

A. An A limited exemption allows you to proceed to go through permit approval process without having to go through the current full development process, or requiring what's called a limited exemption development plan.

Q. What is the date of this approval letter?

A. The date of this approval letter, it's

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dated May 2nd, 2018.

Q. To your knowledge, was any appeal to that letter filed?

MR. ZIMMERMAN: Objection. There's no notice, significant public notice from the DRC. The only notice from the development policy manual is putting a notice in the hallway of the county office building and on the Internet. Citizens do not have a right to participate in these meetings. It's absolutely irrelevant and misleading to suggest that there was a problem, or the citizens are prejudiced if they don't file an appeal.

MR. BELT: Mr. Zimmerman, I understand your argument.

MR. ZIMMERMAN: And I'm not sure that the DRC is even relevant to the case anyway because they still have to get a special exception.

MR. BELT: Well, it seems to be an argument, and this is his response. I mean, they

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could say that if there is no factual matter as to what relevance it has on the case is for argument.

MR. ZIMMERMAN: I think it's irrelevant at best.

MR. BELT: You can answer the question.

BY MR. ROSENBLATT:

Q. Has any appeal been filed?

A. To the best of my knowledge, no appeal has been filed.

Q. Let's talk about why we're here, about the requirements of Section 502.1 of the Baltimore County Zoning Regulations. Are you familiar with those requirements?

A. I am.

Q. I'm going to go through them individually. In your expert opinion, will the proposed use be detrimental to the health, safety or general welfare of the locality involved?

A. In my opinion it will not.

Q. Why not?

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A. We've heard testimony over the last day on various, various subjects about the facility. In my opinion, I've also always described this type of use as a passive use. It's an unmanned facility, it doesn't generate any traffic, it doesn't have any long-term or even temporary density associated with the use, the property will still be, continue to be farmed. Again, in my opinion, it's a passive use.

Q. Will the use tend to create any congestion in the roads, streets or alleys therein?

A. Again, I will keep saying that it's a passive use, as it's unmanned, there's no density associated with the use, it's a variance free plan where all setbacks on the tract boundary and the road will be met. Again, since it's variance free and setbacks will be met, to me it's a minimal use.

Q. Are there certain special exception uses that create significant traffic?

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A. There are, and again, this being a passives use, unmanned, you could compare it to a school, a building for a religious institution, a camp where there will be average daily trips going up and down the street, you know, during busy times of that facility's operation.

Q. Do you expect that this use on this property will create any additional traffic to the detriment of the community?

A. It will not.

Q. Will the use create any potential danger from fire, panic or other danger?

A. In my opinion, it will not. Again, we've heard testimony from our mechanical engineer that the increased chance of fire is not there. Again, there's no traffic. You know, I keep going back and saying it's a very passive use.

Q. How far away is the nearest fire station?

A. The nearest fire station is less than a

mile and a half away.

Q. Okay. Will the proposed facility interfere with the adequate provision of schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements?

A. In my opinion it will not. Again, there's no density associated with this use so it's not going to have any impact on schools. People will not be living at the site so there's no impact on parks. There's no impact.

Q. Will it tend to overcrowd the land and cause an undue concentration of population?

A. It will not. If we look at the site plan and look at the solar array, the special exception area is approximately 19 acres and our site is 99-and-a-half, so it's about 20 percent of the site that is occupied by the special exception area.

Q. Will the use cause any increase in population?

A. It will not cause any increase in population. Again, there's no population or density associated with this use.

Q. Will it interfere with adequate light and air?

A. It will not. Again, the solar facility panels are ten feet high. You could compare that to a height limitation of 35 feet which is allowed in the RC-2 zone.

Q. Will the use be inconsistent with the purpose of the zoning classification or in any other way inconsistent with the spirit and intent of the zoning regulations?

A. In my opinion, it will be consistent with the regulations. You know, pursuant to County Council Bill 37-17, this is a specific use that's allowed in the zoning classification by special exception.

Q. Will it be inconsistent with the impermeable surface and vegetative provisions of the zoning regulations?

A. In my opinion it will be consistent, instead of inconsistent. We're not removing any trees, we're actually planting more trees to meet landscape requirements.

MS. DOPKIN: I'm sorry, could you go back to your last question again? I'm sorry. Go ahead.

MR. ROSENBLATT: Sure. The question was, will the proposed solar facility be inconsistent with the impermeable surface and vegetative provisions of the zoning regulations?

MS. DOPKIN: Thank you.

THE WITNESS: It will not be inconsistent. Again, we are not removing any trees, there will be trees added to the property to properly screen the facility. Water resource buffers will be recorded, they've been established and approved by the county so they will be recorded where there were no buffers there before that.

BY MR. ROSENBLATT:

Q. Will the use be detrimental to the environmental and natural resources of the site and vicinity, including forests, streams, wetlands, aquifers and floodplains in the RC-2 zone?

A. Again, I will go back to my last answer, and offer that where buffers weren't recorded before, they now have to be recorded, which will protect all water resources.

Q. Is there any forest clearing proposed as part of this project?

A. There is no forest clearing proposed.

Q. Will the proposed use be detrimental to the agricultural uses in the vicinity of this property?

A. In my opinion, it will not. This is a use that, again, the special exception area is comprising approximately 20 acres of the site, and the property will still continue to be farmed.

Q. In your professional opinion, does this

request meet all of the factors under Section 502.1 of the zoning regulations for obtaining a special exception?

A. In summary from all the questions that you previously asked, it will meet the criteria for special exception.

Q. In your professional opinion, would this use have any greater impact here in this location than it would in any other RC-2 zoned property?

A. In my opinion, it would not have a greater impact at this location. Again, we go back to the master plan, and you do have a scenic road, but this is not a scenic view on this property. You could go down the street further along Freeland Road heading westerly where there is a scenic view, and it could have a greater impact there than it would here.

Q. How about, does the size of this property play into your analysis?

A. It does. Again, we go back to the acreage of the site, which is just under a

hundred acres. This special exception area, again, will be about 20 percent of the site. The minimum lot size in an RC-2 zone is one acre, so hypothetically you could have a site that's about 25 acres where the facility would take up the whole site. In addition, you could have a solar facility placed where houses are close, as close as 35 feet to the property line, which would be much closer to the majority of houses in the area than this site would.

Q. Have you walked the property?

A. I have.

Q. Have you stood in the location where the solar facility is proposed?

A. I have.

Q. Can you explain what type of existing and proposed landscape buffer there is from the surrounding homes and roads?

A. There is, I can say that it's encased with existing landscaping. What our goal was, was to landscape the facility and tie in to the

existing vegetation that would give the proposed landscaping a natural, you know, presence, also enforce some of the landscape edges that are adjoining the offsite property lines.

Q. If you stood in the center of the solar facility and turned in any direction, can you see even a single house?

A. It's difficult to see houses.

MR. ROSENBLATT: Nothing further, thank you.

MR. BELT: Mr. Zimmerman, sir.

MR. ZIMMERMAN: Mr. Mowell is going to go first.

MR. BELT: Okay.

MR. MOWELL: Thank you.

CROSS-EXAMINATION

BY MR. MOWELL:

Q. So you stood where the panels are going to be and looked out, and didn't see any houses. Have you gone to the houses to look and to see where the panels are going to be and see if you

can see them from the houses?

A. You know, I couldn't go to the houses because I'd be trespassing, but I did ride up and down the streets, and where those houses are located they're public streets so I would have access.

Q. And does the view change depending on the season, can you see more when the trees are not out in the winter?

A. Just from the natural standpoint with deciduous trees, they will lose some leaves, yet I think there's a good amount of vegetation there, or trees, that would kind of have a lattice effect, where there would be some screening, there will be good screening in the wintertime.

Q. I think you said, I think you just said that this would be a minimal use of the property; is that what you said?

A. I would say a minimal effect.

Q. So your opinion is to put 8,000 solar

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going to do to my property value, and he did tell me that, well, if he doesn't show up here, it usually means that, as in every court case I've ever been in, if there's an assessment and they don't show up, it usually means that the value on my property or someone else's has declined or would decline.

MR. ROSENBLATT: I object to the hearsay.

MS. JOLIVET: I would like to get a time frame for this visit.

THE WITNESS: That was, oh my goodness, how long have we been here? I suppose six months ago.

MR. BELT: And addressing the objection --

MR. MOWELL: Well, I can ask more questions, but I think it leads to an admission if it is from the other party or a representative of the other party, and I think that's the case here. I can ask him more questions about that,

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but it's not hearsay if it's an admission.

MR. BELT: What I heard is that he had interpreted the man's absence in this proceedings to infer such. Sustained.

THE WITNESS: I can be a little clearer.

MR. MOWELL: That's what he was told by the representative for the other party, and that's an admission.

MR. BELT: Okay, and I have no way to verify that that's the person from -- it's sustained. Again, sustained.

MR. MOWELL: Okay.

MR. BELT: Ask your next question.

BY MR. MOWELL:

Q. When this person came up, did you ask him who he was?

A. Yes, he gave me a card.

Q. Who was it?

A. The next homeowner would have more of the information than I would have, because I didn't bring that with me.

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Q. You don't remember the person's name?

A. No. I know some of his friends, and I know his relatives are all in the police department, and I guess that's why he became overly friendly, or not overly friendly, but (unintelligible).

Q. Did you ask him why he was there?

A. Yes, immediately, and he told me he was an assessor, and he gave me his card for OneEnergy or whoever it was that he was representing, and so we walked around and I told him about --

MR. BELT: Just stop for a minute. The testimony I just heard now was for OneEnergy or whoever he was representing. Do we have the man's name?

THE WITNESS: I don't.

MR. BELT: Okay. Sustained, sustained, sustained, that's the end of the line of questioning. Thank you.

BY MR. MOWELL:

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Q. Have you had any contacts from anybody who works for the petitioner in this case?

A. Yeah, Kate Larkin has spoke to me several times, she is the outreach for neighboring properties, so she is trying to rectify any problems that we may have, any objections to the solar panels going up. I've talked to her several times, I invited her to my home and she came to my home so she could see exactly what it would look like for us, and there's no way it could ever be covered by landscaping, the view for us, because I sit so high and the solar panels would sit so high also, it would be a direct view. So she came and we discussed that I would still be a hundred percent against it, but I just wanted her to see what my objections would be.

That, and just the thought of these panels coming from China possibly or other places and we don't know exactly what they're constructed of, and I know they're coming through

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cross-examination, so not only is, are the facts of the case at issue, but anything that could be construed as prior prejudice or things of that sort about the issues goes to the credibility of the witnesses, so it's kind of part two of the cross-examination, and I think that's where he was.

MR. ZIMMERMAN: A Solomonic objection.

MR. BELT: Oh well, gee.

BY MR. ROSENBLATT:

Q. My question was, you were trying to get the law to say that these cannot be placed on properties that have prime and productive soils?

A. Correct.

Q. And you lost that argument, right, the law does not prohibit these facilities on prime and productive soils?

A. The way the law was passed.

Q. Does the law even mention the words prime and productive soils?

A. No, it was omitted.

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Q. Does the law mention TEAs, which you testified about?

A. That was not considered either.

Q. Does the law, this bill or any other bill, require a property owner to farm property with prime and productive soils?

A. Require them to farm it?

Q. Is there any requirement for this property owner or any other property owner that has prime and productive soils to farm his land?

MR. ZIMMERMAN: Just very briefly, not to prolong it --

MR. ROSENBLATT: This is just purposely disruptive to the flow of cross-examination.

MR. BELT: Well, let's do this. This has been determined to be the etiquette of the Board. When we have an objection, we stop the question for a moment. Basis?

MR. ZIMMERMAN: All right. To do this expeditiously, I would just like to have a continuing objection to this line of questions

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because it goes to legal interpretation and it's not the province of this witness to answer questions that really go to legal interpretation of the law, which is a special exception law that the Board of Appeals will examine, and I believe all these questions are irrelevant, and I just want a continuing objection.

MR. BELT: The reason they are relevant is because she brought them up, so this is not being brought in a vacuum, this is the testimony of this -- we have stacks of witnesses with all these WXYZ, PDQ, TEA, all those things.

MR. ZIMMERMAN: I think this goes beyond it, but all right.

MS. JOLIVET: She actually makes a legal interpretation, a statute was provided, it's one of the exhibits that she provided a legal interpretation to, Mr. Zimmerman. All right, so, I'm sorry.

MR. BELT: Your continuing objection is noted for the record and we're going to continue,

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overrule the objection, and continue, Mr. Rosenblatt, I'm sorry, sir.

BY MR. ROSENBLATT:

Q. Is there any requirement you know of for this property owner or any other property owner that has prime and productive soil to farm their land?

A. Not that I'm aware of.

Q. So if this property owner wanted to try to put a house in the area of the solar facility or just stop farming altogether, wouldn't that have the same or more of an impact on prime and productive soil than the installation of the solar facility?

A. That would be inconsistent with the zoning.

Q. To do nothing, to not farm?

A. No.

Q. To put a house?

A. The way the property is zoned, there are no further development rights on that property.

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Q. And why is that?
A. Because it's probably been subdivided before. I don't know the zoning history of the property but I am familiar with the farm.
Q. If this owner wanted to stop farming altogether, wouldn't that have much more of an impact on prime and productive soil than placing a solar facility within the fenced area that's shown on our site plan?
A. You know, that's not necessarily so. I don't -- the reason I say that is because we know what happens when someone stops farming prime and productive farmland. It has yet to be established what happens when you build a solar facility and operate it there for a period of years.
Q. That's right, we don't know what the impact is, do we?
A. No.
MR. ZIMMERMAN: Let the witness answer the question, he interrupted.

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MR. BELT: Again, we will continue, and let the witness finish. I believe she paused, and Mr. Rosenblatt was on a roll, but Mr. Rosenblatt, you have to make sure she is finished.
MR. ROSENBLATT: Sure. And I think she did answer my question.
MR. BELT: I think she did.
BY MR. ROSENBLATT:
Q. You prepared an exhibit, I think it was 63, that was your chart of the special exception acres for a number of solar facility properties?
A. Yes.
Q. Did you use the acreage that is the special exception area or the acreage where there are actually solar panels within that special exception area?
A. As I indicated in my testimony, I used the special exception area.
Q. You were here for all the hearings in this case?

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A. Not for all the hearings, but I used the ALJ decisions, information that was concluded in that. I was here for most of the hearings.
Q. Okay. Did you see the site plan in this case, you're aware of what the site plan shows?
A. Absolutely.
Q. Do the solar panels take up all of the special exception area on this site?
A. Not as presently illustrated.
Q. But you used the total special exception area to demonstrate the efficiency per megawatt of each of these facilities?
A. Yes, because at this stage you're looking at a concept plan, and basically you're looking for approval to remove the special exception area out of production, and at a concept stage you would be able to locate those panels anywhere within that special exception area if approved. So you really don't know how many panels are going in there, that has not been finally determined.

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Q. So you think that if the site plan in this case is approved, that the petitioner could then just go and put the panels throughout the 18-acre special exception area as they see fit?
A. He or she could locate those panels within the special exception area subject to certain other limitations.
Q. Okay. Such as?
A. Such as the requirement that it produce no more than two megawatts.
Q. So you believe in all of these cases, that regardless of where the panels are shown on the site plans, that the entire special exception area is how you should measure the efficiency and the area needed per megawatt?
A. Yes.
Q. Okay. Let's talk about your Exhibit 67, which was the TEA map, right? Am I saying that right, TEA?
A. That is the green space report on the property.

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Soils Conservation Service, their soil scientists and themselves. We received it.

Q. All right. Let's talk about this use in general. You said that the bill called this a commercial use but you think this is an industrial use; is that right?

A. I threw that in as a footnote.

Q. And you said the reason you consider this an industrial use is because it produces a product, right?

A. Yeah.

Q. Don't farms produce a product?

A. Yes.

Q. Are they industrial uses?

A. They're commercial uses. Well, it depends, you can call them either one, you can call them -- we use the term all the time, a commercial agricultural property or enterprise. We very rarely call them industrial, like heavy industry.

Q. You talked about the findings and the

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purpose of the RC-2 zone?

A. Yes.

Q. And it sounds like in your opinion, any time one of these uses is proposed on a farm, it's going to violate the purpose and the findings of the RC-2 zone?

A. I didn't say that, I didn't imply it.

Q. Any time you place one of these uses on a farm, you're taking farm land out of production, right?

A. My point was -- let me answer your question.

Q. You don't get to ask questions unfortunately, I get to ask the questions.

A. No, I understand. I go through this every day. Anyway, you're going to have to take land that's in an agricultural use now out of agricultural use for this commercial or industrial use, yes, but you don't take the very best of your agricultural soils on a very good farm in a very good farming area with all the

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alternatives you have and options you have, and go to it and take it out of production.

Q. There are hundreds of acres of these types of soils in northern Baltimore County, right?

A. Yeah, there are.

Q. There are thousands of acres of prime and productive soils in Baltimore County?

A. Yes.

Q. A protestant earlier today showed an exhibit showing 60-plus percent of northern Baltimore County as she called it, to be either prime and productive, or soils of statewide importance; did you see that?

A. I saw that, yes.

Q. This project is based on 14-and-a-half acres of fenced in area. Do you think that is going to beyond repair diminish the prime and productive soils in Baltimore County?

A. It will virtually destroy this farm because it incapacitates the entire farm by the

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way it's configured. You really can't farm this farm like it's been farmed at all because you're constrained by little small areas instead of one big field.

Q. What is the difference if this farmer just decides not to farm the land anymore?

A. That's his right.

Q. There's no requirement to farm the land, right?

A. No, none at all.

Q. Baltimore County has no ability to tell this person you have to farm this land?

MR. ZIMMERMAN: Objection as to relevance. You don't get a special exception by saying I'm not going to do anything with my property unless you give me a special exception.

MR. BELT: Well, I will overrule the objection, I believe it's a fair question. You can ask it again.

THE WITNESS: Repeat the question again so I make sure I've got it.

Q. So you're familiar with various uses that are permitted by special exception in the RC-2 zone, right?

A. A number of them, yes.

Q. Let's take for example a landscape service operation, and that type of business is going to have those impacts, right, there could be noise, there could be sound, smell, et cetera, in a use like that?

A. I really must say this, maybe not to answer your question, but as you come in with a zoning order and there's something in the development regulations, and showed those uses are actually allowed, those ordinances are to protect the county from those kind of disruptions.

Q. That's exactly where I'm going with this.

A. Okay, keep on going then.

Q. What is the impact of this that you're concerned about, what impact is this going to

have on the neighbors?

A. Again, you're disrupting and making the whole farm unusable because of what you're doing.

Q. Okay. Who is that impacting?

A. It's impacting the farm community in general.

Q. Is any of the farm community here, is anyone here a farmer that's saying don't do this because I own a farm somewhere else, or I farm a land somewhere else, and this is going to somehow impact me?

A. No one has spoken up here at this point.

Q. So you're here to speak out --

MR. ZIMMERMAN: Let him finish the answer.

MS. MALONE: He was finished.

MR. ROSENBLATT: Again, purely disruptive by Mr. Zimmerman.

MR. BELT: I will instruct you to wait until the witness is finished, and if the there is an objection, we have to stand up, because

that takes time and it can't just be done without any basis. You can do that, and you can repeat the question.

BY MR. ROSENBLATT:

Q. So you're here on behalf of farmers saying that they are the people that this solar facility is going to impact?

A. I'm here on behalf of the county council and the planning board and all those institutions that were in place that enacted these regulations and who maintained and supported them over all these years, and who don't want to see what they've done undone or compromised.

Q. Let's talk about what the county council and the planning board have done. You've read Article 4.F of the zoning regulations, in fact you had it in front of you as you testified today?

A. Yeah.

Q. Is there one single prohibition against putting solar facilities on prime and productive

soil in Article 4.F of the zoning regulations?

A. If you go to the text where you are, I honestly don't recall there is anything specifically that says in this situation for example, you could not necessarily put a solar farm based on what direction they give in here.

Q. Let's be clear.

A. But you if you look at Article 4.E that I read before, it does indicate that whatever follows has to adhere to agricultural preservation.

Q. I'm sorry, I'm not following you here. Let's break this down. Is there any prohibition in Article 4.F -- you're saying 4.E because you're reading from the bill, is that correct, you're reading from the actual bill. So is there any reference in that section at all to prohibiting these uses on prime and productive soils?

A. Yes.

Q. Where?

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A. Yeah.
Q. Did you get a response from Ms. Larson?
A. No. She says well, you know, we can get them from Canada, and I said well, you know, most of the panels that go into Canada are manufactured over in China anyhow, and she said well, yeah, they can be.
Q. Did you express any other concerns to Ms. Larson?
A. I expressed some concerns about what they were going to be using for plantings, because they were talking about using some leyland cypress plantings and so on. Well, leyland cypresses over the past ten years in our area up in the northern part of the county, have basically took a pretty good hit over the winters, and a lot of the leyland cypresses, no matter if they've been there five, ten or 15 years, are in a state of dying, and I have some of them on my property right now that are in a state of dying, and it's all basically due to the

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frozen rain situations that we have and the ice.
Q. Any other concerns?
A. Like I said, the concern that I have is my property values, and the reason I'm saying that is because I had a gentleman come on my property one day and I was talking to him, his name was David Strathan and he was from a company, Avalon Appraisers, and he basically told me that he was hired by Venable to do an appraisal on my property. So we started talking and I said is there any way that I can possibly see how that appraisal turns out. He said I can't do that. He said, but I will tell you one thing. If you don't see me in one of these hearings at the Board of Appeals, you can bet that you've had a negative impact on your property values from this solar proposal.
Q. Beyond that statement, do you have any concerns about the effect on your property value if these panels are allowed to be put in?
A. Sure I do, because you know, the thing

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of it is I built that house that I live in, and I got out of the neighborhood I did basically due to some situations in the neighborhood and if I can elaborate, I'll explain that to you. I was in a neighborhood that in the '60s and early '70s, it was stable. It started going, to put it bluntly, to hell in a handbag when some people in that neighborhood down on Dark Head Road down in Middle River, there was some abandoned shore houses down there where they had some motorcycle gangs down there that were manufacturing drugs and selling drugs. I remember one Sunday when -- it was only two ways in and out of this development. The police, the county police, the State Police and the DEA people blocked all the streets off and converged into that neighborhood, and they were chasing guys around on motorcycles. I had some guys on choppers run down the sidewalks down in front of my house, and my daughter, who was seven years old at that time, she goes Dad, this is just like on TV. At that

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particular time I knew I had to get the hell out of that neighborhood because I was not going to raise my children in that environment, pardon my language, but that's the way I felt about it.
As an end result, I did find that property up in Freeland, I thought this is where I want to move to, I bought the property, I built my house. The location of my house on that property had basically, was set basically so I had the advantage of looking at the different, you know, rolling terrains and so on. It seems now that this is all going to be gone, it's going to be shot. I've seen my relatives already that lives on Ross Road down in Middle River, that was at one time a small rural farming community where some of my wife's relatives had small independent little farms, had roadside stands and so on. Through different changes in zoning, what was once a little neighborhood bar turned out to be a gentleman's night club, strip joint. We had a couple salvage yards move into the neighborhood,

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MR. BELT: I believe the question was about landscaping.

THE WITNESS: -- get in the ground, and there's those things where if a panel is busted, that these solar panels, the company and the solar people are not going to come out there and do soil samples to see if there's any contamination.

BY MR. ROSENBLATT:

Q. Aren't you uphill, upstream from the Atkinson property?

A. I'm uphill from it, but we've got water aquifers there, and that's one thing I have a concern about.

Q. All right, one final question. You said you've had discussions with Baltimore County. You've been here for all of the hearings in this case, right?

A. Just about, yeah.

Q. Do you remember testimony from Eric Hadaway that a concept stormwater management plan

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was already approved for this project?

A. It can't be.

Q. Are you saying you don't remember that testimony?

A. I heard that, but I can't believe that it is, because it's not finalized until that building permit is applied for and EIR has got their signature on that line, that's when it's approved.

Q. So you don't believe that that's the case?

A. I think that they may have brought something preliminary in to let them look at, but as far as anything final, no, it's impossible.

Q. Not final, but concept.

A. Yeah, concept. I mean, it's not final until that building permit is applied for and they are one of roughly six agencies that's got to approve it.

MR. ROSENBLATT: Okay, understood. No further questions.

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REDIRECT EXAMINATION

BY MR. MOWELL:

Q. Mr. Altmeyer, so then, a stormwater management plan can be in existence, but it's approved at the point where a building permit is granted, is that the story?

A. When a building permit's applied for, the grading plans and so on would go around the different agencies as well as environmental, it would go to plans review, it would go to, go over to -- yeah, let me try to think here for a second -- development management, everybody would review it, it would go over to the landscape architect. Until all those signatures are okay, that system cannot print a building permit. Every one of those agencies has to be signed off with an 01 or it just can't get printed.

Q. Is the stormwater management plan signed off at the point where when the building permit is issued?

A. Yes, it would have to be.

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Q. And does that mean that it cannot be in existence, a stormwater management plan, before that point?

A. Like I'm saying, they could have a concept, but it's not approved by the county. The county might look at it and give them a preliminary yeah, it looks all right, but they're not going to sign anything off until the building permit's applied for.

MR. MOWELL: All right, thank you, that's all I have.

MR. ZIMMERMAN: Just briefly.

BY MR. ZIMMERMAN:

Q. Have the petitioners produced for review by you, me or the county Board of Appeals in this case, a copy of its concept plan?

A. I haven't seen anything.

MR. ZIMMERMAN: That's all I have, thank you.

MR. BELT: All right, thank you, sir, you can step down. Thank you very much.

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February 22, 2019

Board of Appeals of Baltimore County
105 W. Chesapeake Avenue
Suite 203
Towson, Maryland 21204

Re: Petition for Special Exception
632 Freeland Road
Legal Owners: Charles Gary Atkinson and Stephen Gordon Atkinson
Lessee: One Energy Development, LLC
Case No: 2018-194-X

HAND-DELIVERED

Ladies and Gentlemen:

I have enclosed, for filing, the Protestants' Post-Hearing Memorandum for this case. Thank you for your cooperation in this regard.

Very truly yours,

H. Barnes Mowell

Certificate of Service

I HEREBY CERTIFY that a copy of this letter and Post-Hearing Memorandum were mailed this 22nd day of February 2019 to Adam Rosenblatt, Esquire, 210 West Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

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H. Barnes Mowell

RECEIVED
FEB 22 2019
BALTIMORE COUNTY
BOARD OF APPEALS

RE: PETITION FOR SPECIAL EXCEPTION 632 Freeland Road Legal Owners: Charles Gary Atkinson and Stephen Gordon Atkinson Lessee: One Energy Development, LLC	*	BEFORE THE BOARD OF APPEALS OF BALTIMORE COUNTY
7th Election District 3rd Council District	*	CASE NO: 2018-194-X

* * * * * * *

PROTESTANTS' POST-HEARING MEMORANDUM

The Protestants, by their attorney H. Barnes Mowell, submit this Post-Hearing Memorandum in support of their request that the Petition for Special Exception be denied in this case, and state as follows:

Improper Notice of Hearing Before the Administrative Law Judge

Before this Board hearing had begun, the Protestants, by written motion, requested that this case either be remanded to the Office of Administrative Hearings, or dismissed. The reason was that improper notice of the hearing before the Administrative Law Judge had been given. After hearing oral argument on the first day of the hearing, this Board denied the Protestants' Motion, finding "substantial compliance" with the notice provisions in the Baltimore County Code. Substantial compliance is not good enough. As will be shown, case law is clear that improper notice of the hearing is fatal to the jurisdiction of the case, at the initial stage, and at all proceedings that follow. The Board must closely examine the issue of how notice for the initial hearing was given, as it is a jurisdictional issue that will continue to be raised should this case move on to further appeals.

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FEB 22 2019
BALTIMORE COUNTY
BOARD OF APPEALS

The ALJ hearing for this case took place on March 30, 2018. By a Bill enacted by the County Council on February 5, 2018, the notice requirements for cases like this one were strengthened. The notice requirements are set forth in Section 32-3-302 of the Baltimore County Code. Before the law was changed, the notice requirements read as follows:

32-3-302 (b) Notice.

(1) The Department of Permits, Approvals and Inspections shall ensure that notice of the time and place of the hearing relating to the property under petition be provided:

(i) By conspicuously posting the notice on the property for a period of at least 20 days before the date of the hearing;

(ii) By a notice in at least one newspaper of general circulation at least 20 days before the hearing; and

(iii) By posting notice on the county's internet website.

The new law, Bill No. 6-18, among other changes, requires two signs to be posted, and specifies the size of the signs. The Bill says that "the requirements of this Act shall not apply to any Zoning Petition or Hearing Officer's Hearing filed and scheduled for a hearing prior to the effective date of this Act." It then says that this Bill "shall take effect on March 19, 2018".

The Zoning Petition for this case was certainly *filed* before March 19th, the effective date of the new Bill. But the hearing was *scheduled for a hearing* on March 30, 2018, after the effective date of March 19th. Arguably, the new Bill's stricter requirements apply to this case, because it was scheduled for a hearing after March 19th. The Petitioners clearly did not comply with Bill 6-18, as only one notice was posted at the property. The important point is that the Petitioners did not comply with either version of the law. The only notice posted for the hearing was placed on Oakland Road, in an open field, and not at the property address of 632 Freeland Road. Oakland Road is much less traveled than Freeland Road, and a sign there is less likely to

be seen by a motorist than a sign on Freeland Road. A zoning notice concerning 632 Freeland Road should be posted at 632 Freeland Road. There is a house and a driveway at that address, and the notice should have been posted in front of the house. Instead, it was posted at one of the fields on this 100 acre farm. This sign was not "conspicuously posted", which is the standard required under both versions of the law.

Both versions require a third method of notifying the public of an upcoming zoning hearing; a notice must be posted on the County's internet website. There was no such notice of this case on the County website. On March 28th, two days before the hearing, Kathy Pieper requested that the hearing be postponed because of the improper sign placement, and lack of notice on the County website. On March 29th, Judge Beverungen denied the request. His reasoning was that the two e-mail requests for postponement that he had received each cited to Bill 6-18, and the new Bill did not apply to this case.

In their Opposition to the Protestants' Motion to Dismiss or Remand, the Petitioners attached an e-mail from Adam Rosenblatt to Judge Beverungen, dated March 29, 2018. Mr. Rosenblatt began by arguing that the stricter requirements in Bill 6-18 did not apply. He then wrote that "a sign was posted at the property and the hearing was advertised in a local newspaper as required for zoning cases filed and scheduled prior to March 29, 2018." No mention was made of the third requirement, that the notice be put on the County website. No proof was provided by Mr. Rosenblatt that this, the most accessible notice, and the one most likely to be seen by the public, had been given. Mr. Rosenblatt concluded by stating that "The notice served its purpose as the postponement requests show 'actual notice' of the scheduled hearing". In

other words, two people knew about the hearing, so the notice must have been good enough. Like the Board, Mr. Rosenblatt believed that substantial compliance is all that was required.

In Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950), the Supreme Court summarized the due process requirements of a hearing notice:

"An elementary and fundamental requirement of due process in any proceeding which is to be accorded finality is notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections."

In Cassidy v. County Board of Appeals of Baltimore County, 218 Md. 418, 421 (1958), the Maryland Court of Appeals stressed the importance of providing notice of a hearing:

"It has been stated so frequently and so generally that the failure of an administrative official or board to give a proper notice of a hearing, required by law, is fatal to the jurisdiction of the official or the board to conduct the hearing that it requires no citation of authority to support the proposition."

The Court of Special Appeals has cited Cassidy for the proposition that:

"The failure of an administrative official or board to give a proper notice of a hearing, required by law, prevents the official or board from conducting a valid hearing." Baltimore Street Parking Company, LLC v. Mayor & City Council of Baltimore, 194 Md. App. 569, 593 (2010).

In Baker v. Montgomery County Council, 241 Md. 178 (1966), an application was filed to reclassify a 32 acre tract of land from an R-90 zone to an R-20 zone. When the application was granted by Montgomery County, several neighbors appealed to the Circuit Court. After losing at that level, the neighbors appealed again, to the Court of Special Appeals. The Court of Special Appeals agreed with the neighbors' argument that the notice requirements of the County Code had not been followed. The Code required a sign to be posted at the property. It required additional signs to be posted, however, if the parcel of land was five acres or more and abutted more than one road, as this one did. The property owner admitted that only one sign had been

posted, but argued that the notice given, which included a notice in the newspaper, was sufficient, and was substantial compliance with the notice requirements. The circuit court had accepted that argument, but the Court of Special Appeals did not. The Court said:

"As to whether the application for rezoning complied with the procedural requirements of the county code, we agree with the contention of the appellants that the application was void in that it failed to comply with certain of the mandatory provisions of the zoning law." *Id* at 183.

The Court of Special Appeals continued:

"In its supplemental opinion, the lower court, in ruling on the merits of the appeal, found that there had been substantial compliance with the statutory requirements, despite the provisions of § 104-4 that the word 'shall' is mandatory and not optional. Since more than substantial compliance with the zoning laws is required, it is apparent that the applicant violated an obligatory requirement by not erecting the requisite number of signs. Accordingly the lower court should have reversed the action of the district council in granting the reclassification". *Id* at 184.

The Baker decision should serve as a warning for those who believe that substantial compliance with notice requirements in a zoning case is all that is required. After going from the County zoning hearing, to the Circuit Court, to the Court of Special Appeals, the case was sent back to square one. Like the Board in this case, the Circuit Court in Baker had found that substantial compliance was good enough. The Court of Special Appeals disagreed, and expressly held that "more than substantial compliance with the zoning laws is required." If the statute requires two or more signs, one is not good enough.

Baltimore County Code Section 32-3-302 says that the three forms of notice "shall" be given. As in Baker, "shall" is mandatory, and not optional. Three forms of notice are required. Only two were given in this case. The most important one was missing; notice on the internet. The mandatory notice requirements of Section 32-3-302 were not met. The holding in Baker is dispositive, and binding, on what occurred here. This case must either be dismissed, or

remanded to the Office of Administrative Hearings so that proper notice can be given of a new hearing.

Petitioners' Burden of Production

In his concurring opinion in People's Counsel v. Loyola, 406 Md. 54 (2008), Judge Murphy wrote that ..."the applicant for a special exception bears both the burden of production and the burden of persuasion on the issue of whether the special exception should be granted." *Id.* at 109. The burden of production is explained in Terumo Med. Corp. v. Greenway, 171 Md. App. 617, 626 (2006):

"In analyzing whether a proponent has met the burden of production, the court lists the constituent elements of the proposition to be proved -- the crime, the tort, the contract, etc. -- and then determines whether the evidence in the case, if given the maximum credibility and maximum weight, could permit the fact finder fairly to find each of those constituent elements."

The elements to be proved in this case are set forth in Section 502.1 of the Baltimore County Zoning Regulations. Among other things, the Petitioners have the burden to produce evidence that the requested use will not (I). "Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers, and floodplains..." Consistent with that requirement, the new solar facilities law directs that "A Petitioner *shall* comply with the plan requirements of Section 33-3-108 of the County Code. (4F-104(9), *emphasis added*). Section 33-3-108(c) contains a long list of environmental information that must be included with the Plan, including (6). field delineated, marked and surveyed streams, springs, seeps, bodies of water, and wetlands, (9). soils mapped and labeled in accordance with the soil survey of the county, 10). slopes greater that 10% for areas adjacent to and within 500 feet of streams, wetlands or other bodies of water; 11). rare species, threatened

species, or endangered species habitat, 12). existing vegetation, 13). location and type of stormwater management devices and practices, and 16). historical and archaeological sites.

4F-104(10) of the solar facilities law advises that:

"In granting a special exception, the administrative law judge or Board of Appeals on appeal may impose conditions or restrictions on the solar facility use as necessary to protect the environment and scenic views and to lessen the impact of the facility on the health, safety, and general welfare of surrounding residential properties and communities, taking into account such factors as the topography of adjacent land, the presence of natural forest buffers, and proximity of streams and wetlands."

This site contains wetlands, streams, and a floodplain. The plan is to put 8,000 solar panels on this property. There will be runoff from the panels, into the wetlands, streams, and floodplains. We don't know how much runoff, or how it will be controlled, because the Petitioners have provided no stormwater management plan, as required by 33-3-108(c)(13). We don't know how fast the runoff will move, because we don't know, from the Petitioners, how steep the slopes are on site, as required by 33-3-108(c)(10). We don't know whether there is any endangered species habitat, or historical or archaeological sites on the property. We don't know the quality of soil at the site, as required by 33-3-108(c)(9).

The solar facilities law requires the Petitioners to produce evidence that their project is safe. They can't wait until they apply for a permit. They must show the Board, now, that their project will not be detrimental to the natural resources at the site. The Board cannot impose conditions to protect the site without knowing what is out there. The Petitioners have chosen to ignore the procedure clearly set forth in the solar facilities law and, as a result, have not met their burden of production. Their Petition should therefore be denied.

Paul Solomon

Paul Solomon was called as a witness by the People's Counsel. He was accepted as an

expert in land planning and soils. He worked for Baltimore County from 1970 to 1992. He was put in charge of creating the Resource Conservation Zones in 1973. He and another employee wrote the planning and zoning ordinances that created and described the purpose of RC Zones 2, 3, 4 and 5.

This was Mr. Solomon's first time testifying in a solar case, and he volunteered his time. He lives on a farm across the line, in Pennsylvania, three miles from 632 Freeland Road. His farm has Glenelg soils, the same as are found at 632 Freeland Road. Glenelg soils are the most important soils in Baltimore County. They are "loam" (sand, silt and clay) that is seven feet deep. This provides a deep reservoir for the storage of moisture, an obvious benefit when growing crops. The corn yields on his farm were 140 bushels per acre, very high at the time, but they would be 200 bushels per acre now.

Mr. Solomon explained that southern York County was the breadbasket of colonial America, and that Lancaster and York County contain some of the best non-irrigated farmland in the country. He showed a photo of the proposed site at 632 Freeland Road, and said that this was a rare property. It is one of the best farms in Baltimore County, with the best soils. It is in an area dominated by excellent farms. He said that the sun can shine anyplace, but you can't get good soil anyplace. He thought that solar panels on this farm would be a "monument" that would "stand out like a sore thumb." He questioned why a solar array would be "plopped in one of the best farms" in the County.

In Mr. Solomon's opinion, permitting solar panels here would be inconsistent with the purpose of the R.C. 2 Zoning of the property, which is to promote agricultural use by preventing incompatible forms of use. Allowing such a use would not take into account the prime soils on the property. Scattered and sporadic development like this is a continuing intrusion that adds up

over time, and undermines the agriculture industry in the area. He said you need a large number of farms, tied together, to sustain the farm-related businesses that sell things like seed and feed to the farmers. A solar array would cripple this farm; the farmer would not farm what was left. He noted that the Master Plan directs that development must be managed to limit conflict with agriculture, and that development was a threat to the continued development of agriculture in the County.

He concluded by discussing whether this would be a farm 25 years from now, when the solar lease had ended. In other words, would the solar company only be "violating zoning for 25 years?" Mr. Solomon said that, 25 years from now, the road would be in, the posts driven, structures installed, chemicals from metal products onsite, and the area compacted. He said you would never get it back to the way it is now, and it is a "pipe dream" to think otherwise.

Others have talked about the purpose and intent of the laws which created the RC Zones. Never have we heard from the person who wrote them. Paul Solomon knows what those Zones were meant to accomplish because he created them. It was as if James Madison came back to explain what he meant when he wrote "The right of the people to keep and bear arms shall not be infringed." Mr. Solomon believes that a solar array should not be permitted at this location. This is a 100 acre farm, one of the best in Baltimore County, with the best soils, and solar panels would stick out like a sore thumb.

Contrast Mr. Solomon's testimony with that from the Petitioners' experts. David Martin, for one, was not impressed with this site. He will be forever remembered for his opinion, given in this case, that "If you've seen one farm, you've seen them all." He knew nothing of the soil on the property, or the productivity of the farm. He had no appreciation for the beauty of the site. His only concern was how to block the view of the solar panels that his client wanted, by

planting trees around them.

Another expert hired by the Petitioners, Mitchell Kellman has testified in hundreds of zoning cases, almost exclusively on behalf of the party requesting a zoning change. In *every one* of those cases, he has given an opinion that the requested change should be allowed. In this case, he was asked whether each of the nine conditions to be considered in granting a special exception, as set forth in Section 502.1, had been satisfied. Like clockwork, one by one, and with no elaboration, he answered yes. Mr. Kellman does not believe that erecting solar panels would be inconsistent with the purposes of the property's R.C 2 zoning classification. He does not believe such use is in any other way inconsistent with the spirit and intent of the zoning regulations. Although he has no stormwater management plan, knows nothing about the soil onsite, and the site has forests, streams, wetlands, and a floodplain, he believes that installing 8000 solar panels will not be detrimental to the environmental and natural resources of the site and vicinity, including forests, streams, wetlands, aquifers and floodplains. Not surprisingly, Mr. Kellman believes that this requested use, as in every other case where he was hired by a party requesting a zoning change, should be allowed.

Floodplain and Stream

There is a large floodplain on this property, downstream from the proposed site of the solar array. Floodplain protection is set forth in Section 32-4-414 of the County Code which reads as follows:

b) Purpose. The purpose of this section is to:

1) Reduce loss of life and property from flooding;

2) Avoid the need for public expenditures for flood protection;

3) Protect or enhance the environmental quality of watersheds.

c) Development in floodplain prohibited; exceptions. The county may not permit development in a riverine floodplain except for:

1) The establishment of property subdivision lines; and

2) The installation of a pond, culvert, bridge, street, utility or drainage facility that the county finds is not detrimental to floodplain management programs.

d) Base flood elevation.

1) Except as provided in paragraph 2 of this subsection, if the floodplain is shown on the flood insurance rate map, the county shall limit any increase in the existing base flood elevation to a maximum of 1 foot.

2) The county may not allow encroachment in the floodway causing an increase in the existing base flood elevation.

3) In areas where the base flood elevation has not been established, the county shall determine the riverine floodplain and flood elevation by means of a flood study prepared in accordance with the requirements of the Department of Public Works Design Manual and sealed by a registered professional engineer before the issuance of a permit or the recording of a subdivision plat.

We heard nothing from the Petitioners about the floodplain, other than that they intended to put a forest buffer around it. Is this floodplain shown on the flood insurance rate map? What is the existing base flood elevation? Will the runoff from these panels increase the base flood elevation? Will it increase it by more than one foot? Would these uphill solar panels be considered an encroachment into the floodway that will cause an increase in the existing base flood elevation? If the base flood elevation has not been established, where is the Petitioners' professionally engineered flood study, to allow the County to establish the riverine floodplain and flood elevation?

We, the Protestants, have no answers to these questions. We expect this Board to require the Petitioners to provide answers. We look to the Board to hold the Petitioners to their burden of

production, by presenting the evidence needed to assure the community that this site, and surrounding properties, will not be flooded by runoff from the panels.

Lynne Jones offered into evidence photographs of the flooding in and around the site. One photo shows Freeland Road, at the entrance to the Atkinson home, after a summer storm. The road is impassable, completely flooded with runoff. Another shows the stream below the proposed solar site. It is completely out of its banks, and flowing onto Freeland Road.

Another set of photos show the streams that meet on Bob Rohe's property. The photographs depict the significant changes to the size and location of the stream beds from the volume of water from two summer rain storms. Ms. Jones also put into evidence photographs of the Heathcote Mill, an historic mill located below the Atkinson property that is designated as a Baltimore County landmark. The summer storms flooded Heathcote Road and the Heathcote Mill, two feet deep, after the adjacent stream overflowed its banks.

Will the runoff created by these solar panels increase the base flood elevation in the floodplain that runs through the Atkinson property by more than one foot? Common sense tells us that it will. The Petitioners have produced no evidence that it won't.

Theaux Le Gardeur testified about the stream on the Atkinson property, which runs through the area of the floodplain. He is the Gunpowder Riverkeeper. His job is to protect the quality of the water in the Gunpowder Falls, and this stream eventually reaches the Gunpowder. Mr. Le Gardeur confirmed that this is a Class III trout stream. He said that trout require clean, cold water to survive. He expressed concern about the quantity of runoff from the solar panels into the stream, the temperature of that runoff, and whether the ambient air temperature around

the panels would increase. All are valid concerns, and none were addressed by any of the Petitioners' witnesses.

Runoff

The Petitioners seem to believe that the stream and floodplain, downhill from their solar panels, will be protected if they allow forest buffer areas to be demarcated around them. The County Code describes the purpose of forest buffers:

1. Multiple environmental protection and resource management values are provided by forest buffers.
2. Forest buffers enhance and protect the natural ecology of stream systems, water quality, wildlife habitat, the aesthetic and scenic qualities of natural features, environmentally sensitive areas, such as aquifer recharge areas, and flora and fauna preservation sites.
3. Forest buffers adjacent to stream systems:

    i) Restore and maintain the chemical, physical, and biological integrity of the water resources;
    ii) Filter nutrients and toxins;
    iii) Reduce erosion and control sedimentation;
    iv) Stabilize stream banks;
    v) Provide infiltration of stormwater runoff;
    vi) Maintain base flow of streams;
    vii) Provide the organic matter that is the source of food and energy for the aquatic ecosystem;
    viii) Provide tree canopy to shade streams and encourage trout and other desirable aquatic species;
    ix) Provide riparian wildlife habitat;
    x) Provide scenic value and recreational opportunity; and
    xi) Minimize public investment in waterway restoration, stormwater management, and other resource expenditures.

Rainwater, and lots of it, will run off of 19 acres of solar panels. We don't know how much, because the Petitioners haven't made the calculation. They haven't looked into it yet because it's not on the County Checklist. The runoff will run downhill and into the forest buffers - those same buffers that are supposed to protect the stream and floodplain from runoff. A decision which would allow the installation of a runoff-generating solar array, but require buffers to protect surrounding assets from the runoff just created, would be an absurd decision.

This stream, and the floodplain, should be protected not by buffers, but by a common sense decision that 8,000 impermeable glass panels should not be installed upstream from them on this property.

The plan is to install the solar panels on sloping soil. The Petitioners provided no evidence as to how steep the slopes are on their site. John Altmeyer, an adjacent property owner, happens to have experience in this field. He obtained a contour map of the site, with elevations, and computed slope percentages ranging from 5.86% to 9%, at six different locations where the solar panels would be installed. He then explained the Stormwater Design Guidance that the Maryland Department of the Environment has provided for solar panel installations. Those guidelines describe what is needed to control stormwater runoff. For sites between 0 and 5% slopes, all that is needed is to keep a "disconnection flow path" between rows of panels, at least equal to the width of the panels. If the panels are 6 feet wide, for example, by leaving the proper vegetation in an area 6 feet wide between the rows of panels, "the runoff from 1.0 inch of rainfall is treated." (One would assume that runoff from more than 1 inch of rain would not be properly treated.)

For slopes between 5% and 10%, the guidelines suggest that more may be needed, such as level spreaders, terraces, or berms. Mr. Altmeyer explained that level spreaders are gravel-filled trenches or containers situated at the drip edge of each row of panels. They are designed to slow down and catch runoff from the panels. He said that berms and terraces can also be used, by grading the area, also to slow down and redirect the runoff.

Finally, the guidelines mandate a formal stormwater management plan for slopes greater than 10%. "However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment and safe and non-erosive conveyance of runoff to the property

line or downstream stormwater management practice."

It is undisputed that there are slopes on this site between 5 and 10%. It is undisputed that the Maryland guidelines state that disconnection is only good for one inch of rain, and only on slopes from 0 to 5%. It is undisputed that the Petitioners produced no plan for how they intend to handle stormwater runoff from their panels. The area is already prone to flooding. This Board has been given no evidence to conclude that runoff, at this vulnerable site, will be properly handled and contained, and will not cause damage to the streams and floodplain onsite, or to downstream property owners.

Prime and Productive Soils

The County Council Planning Board took another look at Bill 37-17 last summer, and recommended that solar facilities not be permitted on prime and productive soils. Kathie Pieper provided valuable testimony on this issue. She said that soils can be put into one of three categories: Prime, Not Prime, and Farmland of Statewide Importance. Interestingly, the largest category in northern Baltimore County is Not Prime, which comprises 37% of that area. She then looked at the special exception area where this solar array would be installed, and found that 86.8% of the soils in that area are Glenelg loam or Glenville loam. Both types are listed as Prime Farmland soil. The remaining 13.2% of the soil in the special exception area is Glenelg loam, 8 to 15 per cent slopes, which is listed as Farmland of Statewide Importance. 100% of the area under the proposed solar panels would be either Prime soil or Farmland of Statewide Importance.

Ms. Pieper then compared the percentages of such prime soils under the panels to the percentages in all of northern Baltimore County. In each case, this site contained much higher percentages than the area in general. Overall, 16% of northern Baltimore County has these

special soils, compared to 100% at the proposed site.

Ms. Pieper has personal experience with this property, as it was farmed by her husband during their marriage. She said it was a good farm with productive harvests. She noted that the location of the solar array would effectively remove most of the farm from crop production. The solar array would make it harder to access the remaining acreage on the farm, with the large combines and other farm equipment having to maneuver around the array and into the remaining acreage. She believed the array would make it less attractive to a farmer leasing this property, with the best land covered with panels, and the remaining acreage not worth the trip.

It is clear that if the law is changed, a solar facility will not be allowed on this site. Section 2 of Bill 37-17 required the Planning Board, in consultation with other county agencies, the Sierra Club, and the Valleys Planning Council, to "study and evaluate the impact of Solar Facilities in Baltimore County and the effect of Article 4E of these regulations, and by July 1, 2018, submit recommendations to the County Council and the County Executive regarding potential changes to the current law." The Planning Council conducted such a study and concluded that solar facilities should not be allowed on prime and productive soils. Implicit in that recommendation is their belief that the impact is unacceptable at sites with good soil, and that prime farmland should be reserved for agricultural use. This Board should follow the Planning Board's recommendation to prohibit solar arrays on sites with prime and productive soil, like this one, even if such prohibition is not added to the law by the County Council.

Site Selection

Marni Carroll, from One Energy, testified that she looks for a flat, open area, with minimal slope, and away from wetlands, when looking for a solar array site. She tries to stay away from scenic roads. She would exclude a site based on the prime quality of its soil. She had

the soils report for this site. She got down to ten potential properties. She said this project was "time limited." She chose 632 Freeland Road as her site.

632 Freeland Road has the best soils in Baltimore County, according to Paul Solomon. The Petitioners' own site plan shows an area of wetlands on the property. The site has slopes up to 9%, according to John Altmeyer. The property is located on not one, but two scenic roads.

Ms. Carroll ignored her own criteria when choosing this site. She did get a flat, open field, but it has wetlands, slopes, prime soil, and sits at the corner of two scenic roads. Why then, this site? It appears that her most important consideration was that the project was time limited. She was in a race to get one of the ten slots available in District 3, and northern Baltimore County landowners were not particularly interested in what she had to offer.

Kathie Pieper looked, and had little trouble finding more suitable sites that were not on prime farmland, not on a scenic road, and not in a Targeted Ecological Area. One Energy knew what to look for. It settled for a site that it could get; not one that it wanted. This Board should exclude this site based on the same characteristics that Ms. Carroll said she was looking to avoid, as those characteristics make this an unacceptable location for a solar array. There are suitable sites out there; you have to take your time and find them.

Allowable Area for Solar Facility

Section 4F-102(B) places specific limits on how much of the land in Baltimore County can be used for solar facilities. 4F-102(B)(1) applies to the acreage allowed for each project:

"B. The allocation of land for solar facilities in the County is limited to the following:
1. The maximum area permitted for a single solar facility is the amount of acreage that produces no more than two megawatts alternating current (AC) of electricity."

The People's Counsel asked Marni Carroll about a statement that appears on One Energy's website. The statement, shown on People's Counsel Exhibit 3, says that:

"Our solar farms range in size from 15 acres to hundreds of acres. A 3 MW solar farm can be built on about 15 acres and generate enough energy to power roughly 500 homes."

Ms. Carroll said that is not the case on this project; "we use this to communicate to the public." She had no answer for why they need 19 acres here to create two megawatts, when their website says they can make 3 megawatts on 15 acres.

In his Opinion and Order, Judge Beverungen wrote that the proposal requested "to use approximately 19 acres of the site for a solar facility". He granted the special exception, but with a condition that "All solar panels installed on the subject property must be confined to an area no larger than 10 acres situated within the overall 18.929 acre special exception area shown on the site plan."

The Petitioners did not file a cross-appeal to contest that condition. They made no revisions to their plan to reduce its size to 10 acres. They have, instead, completely ignored the condition, and are moving forward with a plan to use 19 acres.

Kathy Pieper researched the varying sizes of special exception area in Baltimore County solar cases. She charted the acreage required to produce one megawatt of electricity for twelve proposed projects (Protestants' Exhibit 63). She found that the project at 15637 York Road proposed to produce one megawatt on 4.5 acres. This project, 632 Freeland Road, will require 9.5 acres to produce one megawatt, the biggest area of any of the twelve projects shown on her chart.

Matthew Durette, One Energy's engineer, said that the panels for this project have not yet been bought. It is clear that the plan is to use cheaper and less efficient panels on this site. One Energy can produce 2 megawatts on 10 acres. Their own website says that; and a competitor at 15637 York Road can do it on 9 acres.

Judge Beverungen read 4F-102(B)(1) as a specific requirement to only allow efficient

solar arrays in Baltimore County. He has heard all of these cases, and ruled that this project could be done on 10 acres. He has interpreted the law to limit the acreage for a solar array to what is reasonably needed to create two megawatts of power. The Petitioners have ignored, yet did not appeal, his interpretation. Their proposal should be denied because it does not minimize the footprint of its solar array, and because it exceeds the 10 acre limit set forth in the ALJ decision, which they did not appeal.

Incompatibility with Zoning Classification

This is a 100 acre, highly productive, working agricultural farm. Paul Solomon believes it to be one of the best in the County. It is zoned RC 2. Section 1A01.1(B) of the BCZR states that "The R.C. 2 zoning classification is established pursuant to the legislative findings above in order to foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses." Under Section 1A01.2(A), "Agricultural operations" are the preferred use, and "shall be afforded preferential treatment over and above all other permitted uses in R.C. 2 zones." Under 1A01.2(C), special exceptions may be permitted, "provided that in each case the hearing authority empowered to hear the petition finds that the use would not be detrimental to the primary agricultural uses in its vicinity..."

Section 32-4-415(C) of the Baltimore County Code provides that "On prime and productive soils within the RC-2 zone, the county may not approve a Development Plan or plat unless the county finds that construction, excavations, buildings, structures, pavements, grading, clearing or other disturbances of the soils will be limited or restricted in accordance with policies established by the Department of Environmental Protections and Sustainability to promote agricultural use and protect the county's soil resources." It is beyond dispute that construction

of an industrial solar array on this RC 2 farm, with prime and productive soils, would not promote agricultural use, or protect the County's soil resources.

Anne Holmes Jones was called as a witness by the Protestants. She has a master's degree from Hopkins in Urban and Regional Planning, and has worked as a consultant in the field of land preservation since 1987. She said this farm is in an Agricultural Priority Preservation Area. That designation is applied by each County to areas that they want to preserve for agricultural use. According to the Baltimore County Master Plan, "The protection of land for agriculture has been a key component of rural growth management in the County for over 40 years. Significant public funds have been invested in the permanent protection of cropland, pasture and woodland to maintain and foster a viable agricultural industry." Master Plan 2020 at p. 166. One of the goals in the Master Plan is to "monitor the Agricultural Priority Preservation Areas to ensure that at least 80% of the remaining undeveloped land is either under easement or temporarily protected by restrictive zoning (such as RC 2)". Master Plan 2020 at p. 166.

Ms. Jones said that a solar array on this farm would contribute to "fragmentation". Like Mr. Solomon, she believes that a large body of farms is needed to sustain agriculture in an area. She also believes there is a limited amount of prime and productive soil, and it should be reserved for agriculture.

A solar array here would cover some of the best soils in Baltimore County. It could well take this entire 100 acres out of agriculture production. Corn and soybean fields would be replaced by an industrial site; 8,000 panels, tracking the sun, motors whirring, covering 19 acres; a facility wholly incompatible with the surrounding farmland.

Targeted Ecological Area

The subject property is in a Targeted Ecological Area (TEA). That is a designation given

by the Maryland Department of Natural Resources to the lands and watersheds that are the most ecologically important areas in the state; the "best of the best". The map of TEAs in the State, entered into evidence as Protestant's Exhibit 66, shows that not much of northern Baltimore County is in a TEA, and even less is unprotected by an agricultural easement or other development restriction. It would be nonsensical for the County to allow for a solar array to be installed in an area targeted, by the State, for protection because of its ecological importance.

Wetlands

The subject property contains several wetlands areas. Wetlands are natural assets afforded significant protection in Baltimore County. Section 32-4-414 of the County Code is entitled "Floodplain and Wetland Protection". Section 32-4-414 (e) reads as follows:

(e). Wetlands.

1) The county may not permit dredging, filling or construction in any nontidal wetland or tidal wetland.

2) The county shall require adequate protection of nontidal wetlands or tidal wetlands from contamination.

One Energy would prefer not to build near wetlands. Marni Carroll acknowledged that in her testimony. One Energy has provided no stormwater management plan, no evidence of the quantity or temperature of the runoff from its panels, and nothing to indicate that they will be able to provide adequate protection of the wetlands areas.

Viability of Petitioners

The solar statute directs that "all parties having a lease or ownership interest in a solar facility are responsible for the maintenance of the facility." 4F-106(A). Expected maintenance includes "painting, structural repairs, landscape buffers and vegetation under and around solar panel structures, integrity of security measures", and access roads. Under 4F-107, the owner or

operator are also responsible for removing the solar facility at the end of its useful life, or when it has been abandoned.

A Petitioners' exhibit says that "Sassafras Solar, LLC is owned by One Energy Renewables, a national solar energy developer founded in 2009". Marni Carroll testified that the lease that One Energy Renewables had with the Atkinsons had been transferred to Sassafras Solar, LLC. The lessee in this case, however, is listed as One Energy Development, LLC. Ms. Carroll explained that "LLC's are formed for liability reasons for special projects." She later added that she didn't think the parent company remained liable on the lease. If the Board is confused, so is the community. It appears that the only entity with assets is One Energy Renewables. But that entity is not liable on the lease. Not one, but two entities have been formed to assume legal liability; One Energy Development, LLC and Sassafras Solar, LLC. Neither have any assets. They are shell entities, created to insulate the parent company should a problem arise.

Who is responsible for mowing around the solar array, painting the support posts, replacing a broken glass solar panel, replacing a dead tree, caring for a deer that has jumped inside the fence, or fixing a tracking motor? Who will pull out the posts, cart away 8,000 old solar panels, and clean up the site when the lease has expired in 25 years? The answer - one of two shell entities, neither with any assets to protect, or incentive to fulfill their obligations under the solar law.

One Energy Development, LLC and Sassafras Solar, LLC will simply walk away if a problem arises, or if this project is not profitable. Neither has any reason for concern if it gets a code enforcement fine for not replacing a dead tree, or is sued for negligence in operation of the site. Neither entity has assets, nor anything to lose.

If this venture loses money, and the solar array is abandoned, there is zero chance that the shell entities will tear down the array. The panels will be left there to rust. If the solar array sustains damage, and stops working, it will only be repaired if it makes economic sense to One Energy Renewables. If it does not, One Energy Development, LLC and Sassafras Solar, LLC could be fined, or sued. Neither will care because they will be dissolved, and will cease to exist. One Energy Renewables, the "national solar energy developer", from the state of Washington, will move on to new ventures, in new communities, and will create new shell entities to insulate its assets from liability.

The financial status and reliability of the property owners, Gary and Steven Atkinson, is equally suspect. We heard nothing from either of them. We did not hear their plan for maintaining the site, taking down the panels 25 or more years from now, and then restoring the property to agricultural use. We heard nothing about their financial ability to take care of the site. We don't know if they are even aware of their maintenance and tear-down responsibilities under the solar law. We don't know if their lease addresses such responsibilities.

The Petitioners have the burden of production on all issues in this case. They have failed to produce evidence explaining how they will maintain, monitor, and tear down this site. This is a long-term project in which the owner and lessee must be financially able to fulfill their obligations for twenty five or more years. From their presentation, they intend to avoid their obligations.

Scenic Routes

The Atkinson farm sits at the corner of two Baltimore County scenic routes; Freeland Road and Oakland Road. David Martin thought that he may have worked on one other project on two scenic routes, but he wasn't sure. There are no others seeking permission for a solar array

that are located on two scenic roads. According to the Master Plan, "The preservation and enhancement of the scenic resources in Baltimore County is an essential component contributing to the quality of life of residents." Master Plan 2020, p. 99. It is the policy of Baltimore County to "preserve scenic corridors and views through proper zoning and coordination with federal and state governments." Master Plan 2020, p.99. "For properties along scenic routes or with scenic view sheds, variances, amendments and special exceptions should be granted sparingly." Master Plan 2020, p. 101.

The Zoning Advisory Committee Comments for this project, dated March 27, 2018, indicate their reluctance to approve this site:

> The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg. 177). The CMDP further states "*designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit*" (CDMP pg. 175). The Master Plan 2020 confirms that the "*preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents.*" (MP2020 pg. 99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg. 177).

One of the recommendations from the County Planning Board, in its August 2018 review of the solar law, was that "Solar facilities should not be detrimental to scenic views or routes". This site has two scenic routes. While planting trees between the road and the solar panels may eventually block out the panels, they will also block the "expansive views" into the property. Those views will be gone for good.

The Neighbors

Three adjacent property owners attended these hearings, and patiently awaited their turn to testify. Nadine Lentz grew up in rural Pennsylvania. A job transfer moved her to Maryland,

and she was looking for a home for her family. She came to a property on Orwig Road, and said "That's the one, we are home." The area was rural, surrounded by cornfields, and reminded her of where she grew up. There is wildlife all around: eagles, turtles, a bobcat, wild turkeys, deer, and now coyotes. The area is among the highest in elevation in northern Baltimore County. Her home has been hit by lightning several times, as have her neighbors. It's a windy spot that gets a lot of snow. When she used to leave work downtown, she would tell her friends that she was "going home to my little piece of heaven."

Mrs. Lentz is concerned about the resale value of her home. She and her husband are retired, and she believes a solar array next door will decrease the value of her property. She believes that solar is an industrial, and not an agricultural use. She is afraid that a project like this would open the door for other industrial uses to move into the area, replacing farmland. She also believes that when this lease is up, another industrial use could replace the solar array, instead of the site reverting to farmland.

Bob Rohe also lives adjacent to the proposed site. He grew up on a family farm in Fullerton. He moved to Orwig Road in 1980. He leased some of his land to a farmer. The farmer told Bob that his land had the highest corn production out of all of his farms. Bob had his soil tested, which confirmed that it was high quality. He planted Christmas tree seedlings in the early 80's, and overplanted, expecting to lose some trees. He lost far less than expected because his soil is so good.

His five acres of trees now block the view of the solar site from five other homes on Orwig Road. When he cuts down those trees, the panels will be in plain view from those five homes. Mr. Rohe and his wife like to watch the sunset from their deck; he put into evidence a beautiful photograph of that sunset in the winter. If this project goes through, he will be

watching the sunset over a field of solar panels. He also showed a photo of an eagle mother and baby in a tree near the solar site, and a swollen stream, after a storm, which feeds into the stream on the Atkinson property. He doesn't believe that runoff from a solar site at this location could be controlled.

As with Mrs. Lentz, Mr. Rohe believes that his property value will decrease if this project is approved. Buyers will think that the solar field is just a foot in the door for more commercial development. The view of the solar panels from his home would kill any sale.

John Altmeyer bought property on Orwig Road in 1983. He wanted to get away from his crime-ridden neighborhood to raise his children. He designed and built his home on Orwig Road. He positioned the home to maximize his views of the Atkinson property's rolling farmland. He sets up a blind and watches the abundant wildlife with his grandchildren. He is concerned that the wildlife will be affected by the solar array. Like the others, he is concerned about his home losing value if a solar array is installed next door.

Conclusion

The Petitioners' burden is to demonstrate that the benefits of solar energy production, at this specific location in Baltimore County, outweigh its potential impact on that area. For all of the reasons cited above, the Petitioners have failed to meet their burden, and their Petition for a Special Exception should therefore be denied.

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Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing was mailed this 22nd day of

February 2019 to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204 and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

H. Barnes Mowell

RE: PETITION FOR SPECIAL EXCEPTION 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

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PEOPLE'S COUNSEL FOR BALTIMORE COUNTY'S POST-HEARING MEMORANDUM

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Baltimore County Code § 32-4-106 ..... App. 35

Webster's Third International Dictionary definition of "minor" ..... App. 37

RE: PETITION FOR SPECIAL EXCEPTION 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

PEOPLE'S COUNSEL FOR BALTIMORE COUNTY'S POST-HEARING MEMORANDUM

People's Counsel for Baltimore County submits this post hearing memorandum:

1. Preface

This solar facility special exception case involves 632 Freeland Road in rural Freeland, zoned R.C. 2, Agricultural. Petitioners Charles and Stephen Atkinson, property owners, and OneEnergy Development, LLC (OneEnergy) filed a petition on January 25, 2018. This *de novo* appeal to the County Board of Appeals (CBA) follows Administrative Law Judge (ALJ) John Beverungen's April 3, 2018 conditional approval.

The County Council enacted Bill 37-17 to govern land use of community solar facilities. P.C. Exh. 2. Baltimore County Zoning Regulation (BCZR). Article 4F. App. 9. The Bill permits solar facilities by special exception in R.C. 2 to R.C. 8 Zones and Business and Manufacturing Zones. BCZR Secs. 4F-102.A.1; Sec. 502.1. App. 12. The solar facility law adds area and other standards. BCZR Secs. 4F-102.B, 4F-104.

2. The Parties: Petitioners and Protestants

Petitioners Charles and George Atkinson did not testify. There was submitted their promotional farm-saving letter, which was admitted over objection. Pet. Exh. 6. OneEnergy is from Seattle and they produced manager Marni Carroll and technical staffer Matthew Durette. Yet they formed a Delaware corporation, Sassafras Solar, for their site plan and PowerPoint exhibits. Pet. Exh. 1, 5. This paints a blurred picture of management and responsibility for operation and compliance. This gives no confidence in the project's proper implementation even were the plan otherwise acceptable.

Among appellants, Nadine Lentz and Robert Rohe testified as adjacent residents concerned about the impact on their properties. John Altmeyer testified as a resident and as a retired county staff member with knowledge of stormwater management issues.

Lynne Jones testified both individually and as President of Sparks-Glencoe Community Planning Council (SGCPC), with the CBA Rule 8 papers. Prot. Exh. 13A-B, The property is outside their defined boundaries, but within their area of interest. P.C. Exh. 21. Their concerns extend to proliferation around the rural county. Kathleen Pieper testified individually and as President of the North County Community Group, with Rule 8 papers. Prot. Exh. 57. Freeland is one of its key areas. Prot. Exh. 57.

Lynne Jones lives in Parkton, miles away. Pet. Exh. 22. To repeat, there are "... liberal standards under Maryland law for party status at an administrative hearing." Dorsey v. Bethel A.M.E. Church 375 Md. 59, 72 (2003). Anyone expressing an interest may properly be a party, absent a rule to the contrary. The GIS Map shows the R.C. 2 Zone occupies a vast area of 139,053 acres, manly in the north county. P.C. Exh. 20. Moreover, Pattey v. Board of County Comm'rs 271 Md. 352, 363 (1974), stated,

> "... the "concept of a 'neighborhood' is a flexible one and will vary according to the geographical location involved, it being axiomatic that in rural or semi-rural areas, ... the 'neighborhood' will be larger and more fluid than in a city or suburban area."

3. People's Counsel

People's Counsel for Baltimore County appears in zoning cases to defend the comprehensive zoning maps and master plan in the public interest. Baltimore County Charter Sec. 524.1. App. 1. In 1974, Baltimore County citizens established the charter office to defend the comprehensive zoning maps. Bill 61-74. A 1978 charter amendment added defense of the master plan. Bill 90-78. We include Section 524.1(a)(3) in the appendix. App. 1. The office's function extends broadly to zoning and related cases, including special hearings and development cases with zoning issues.

The office participates regularly in special exception cases. See People's Counsel v. Webster 65 Md. App. 694 (1986); People's Counsel v. Mangione 85 Md. App. 738 (1991); Umerley v. People's Counsel 108 Md. App. 497, cert. denied 342 Md. 584 (1996); Riffin v. People's Counsel 137 Md. App. 90, cert. denied 363 Md. 660 (2001);

People's Counsel v. Country Ridge Shopping Center 144 Md. App. 580 (2002); Lucas v. People's Counsel 147 Md. App. 209 (2002), People's Counsel v. Loyola College 406 Md. 54 (2008); Attar v. DMS Tollgate 451 Md. 272 (2017). The appellate courts have recognized and approved People's Counsel appearance and positions in special hearings involving legal interpretations. People's Counsel v. Maryland Marine Mfg. Co. 316 Md. 491 (1989); Board of Child Care v. Harker 316 Md. 683 (1989); Marzullo v. Kahl 366 Md. 158 (2001); People's Counsel v. Surina 400 Md. 662 (2007).

The Court of Appeals confirmed the office's "broad charge to protect the public interest in zoning and related matters." People's Counsel v. Crown Development Corp. 328 Md. 303, 317 (1992). This addressed residential development involving a zoning issue on transfer of density. Sycamore Realty Co. v. People's Counsel 344 Md. 57 (1996) addressed zoning estoppel for a development. Another key development case involves master plan defense. HNS Development v. People's Counsel 425 Md. 436 (2012).

4. Patience

"Long road sometime shortest way to end of journey." Charlie Chan at the Racetrack (1936)

This case is complicated and important. The new solar facility legislation is part of a legislative scheme with special exception law, the R.C. 2 Zone, Master Plan 2020, and environmental law. There are multiple legal and statutory construction issues. There are questions of issue identification, scope, relevance, and timing. There are experts and citizens, facts and opinions. There is also Matthews. Patience is all.

5. Resource Conservation Zone X Four

The "Magical Mystery Tour" The Beatles (1967)

This is the fourth track in the CBA's north county R.C. Zone "magical mystery tour." It follows Matthews and Gerner, with HHK pending and more to come.

Freeland borders Pennsylvania to the north, is mainly agricultural and in a priority area. The Atkinson farm occupies 99.46 acres at the southwest corner of Freeland and Oakland Roads, both scenic. It stretches uphill north along Oakland Road to the state line. The northernmost section occupies a high plateau with prime Glenelg A and B soils. This area has been farmed historically for corn and soybeans. This is where the 14.5 acre

solar array is proposed in an 18.6-acre special exception area. From the plateau, the property slopes downward south toward Freeland Road across an area of Glenelg soils either prime or of statewide importance. There is then in the southernmost part of the property a stream system, with wetlands and floodplains, flowing to Freeland Road. A dwelling exists near the corner of Freeland and Oakland Roads.

The impact on agricultural prime and productive soils could not be more severe. As a practical matter, the facility will destroy a farm which ranks among the best in the county. To compound these impacts, the two scenic roads surround a picture postcard setting. The landscaping cannot remedy the visual impacts. There are also presented reasonable concerns about serious environmental impacts and the deferral of scrutiny to the bilateral closed-door bureaucratic development process, invisible to the public.

To cap it off, Petitioners exceed the acreage to produce 2 megawatts. The pattern of other cases, confirmed by literature, shows 5 acres can produce a megawatt. This justifies ALJ Beverungen's 10-acre limit, which Petitioners did not appeal. P.C. Exh. 28.

6. Petitioners' Playbook

"I've heard it all before." Madonna, Sorry (2005)

Despite differences in detail, there emerges a pattern. The national corporations choose a site convenient for operation. They pay no attention to soils, scenic roads, or the environment. They set up shell corporations. They hire consultants who work constantly for developers. They present as if expertly qualified on all issues, even legal interpretation, regardless of their limitations. They assert unhesitatingly that prime and productive soils are irrelevant; visual impacts are insignificant or will be remedied by landscaping; environmental issues will be taken care of later; and everything is copasetic.

When not dismissing serious impacts as irrelevant, they spin a promotional web. Pet. Exh. 4. They advertise the Orwellian "solar farms" moniker. P.C. Exh. 3. They have the Atkinsons plead the facility will save their farm. Pet. Exh. 6. Otherwise stated, they choreograph that their long-term/indefinite displacement and destruction of agriculture will actually save it. Meanwhile, they fail or refuse to disclose the expected financial rewards, which must be massive to justify their unrelenting efforts.

They claim that meeting baseline setback, height, landscape buffer, fencing, and security criteria are enough for approval. This avoids their burden of proof on key adverse impacts. They cover it up with the favorable "presumption" umbrella for special exceptions. This effectively conflates special exceptions with uses permitted by right.

They try to turn Bill 37-17 into a legislative anointment to bless ritually a network of solar fiefdoms. We disagree with this premise. It is flawed legally from start to finish. We also disagree with the inflation of their expert testimony, devoid of factual and legal basis, and with their portrayal of citizens as NIMBYs to be disregarded.

Petitioners' false narratives function dangerously and severely as potential nails in the coffin of this prime scenic farm property and north county agriculture generally. It could be the zoning version of Albert Camus' postwar classic La Peste (1947).

7. Matthews Redux

"The time has come to say fair's fair." Midnight Oil, Beds Are Burning (1987)

On January 24, 2019, the CBA publicly deliberated and approved the Matthews solar facility special exception at 20450 Middletown Road, on land zoned R.C.2/R.C. 8 in the northwest Freeland area, with the facility to be located adjacent to the road on the R.C. 2 split. It is appropriate to take Matthews into account.

In our view, the legislative scheme --- the special exception criteria, the R.C. 2 Zone findings and purpose, and the solar facility law --- does not intend to exclude, negate and nullify consideration of particular locational adverse effects and comprehensive zone harmony relating to agricultural protection, prime and productive soils, and scenic/visual ramifications. Nor does the legislative scheme envision deferral of examination of specific environmental issues to the later development process. Nor does the "Can't be forced to farm" red herring have any place in the thought process.

But this is what Matthews decides and portends for other and future cases. By excluding these issues from consideration, Matthews forecloses review of the major impacts in all solar cases. Matthews effectively rules that Petitioners gain approval by checking off the relatively perfunctory setback, height, landscape manual, and fence requirements. Consequently, the hearing assumes the appearance of a screenplay.

Perhaps unintentional, the plot unravels to a fateful denouement where CBA public deliberation and written opinion look like final scenes of predestined ratification.

Otherwise stated, Matthews precipitates an unwarranted domino effect. To so approve the destruction of agriculture, impairment of scenery and visual quality, and abdication from scrutiny of environmental impact turns the legislative intent upside down. The special exception turns virtually into a use by right. This leaves the citizens in a position of futility. They perceive they have no chance in any of these cases.

Another aspect of Matthews deserves attention. At the public deliberation, the CBA Chair disapproved Lynne Jones' participation. The Chair suggested there should have been an objection to Ms. Jones' testimony both as SGCPC President and individually. The Chair reasoned that the Middletown Road site is outside the group's boundary, and that Ms. Jones lives about 6 miles away from the site,. The Chair cited the "Bryniarski" rule on standing and proximity.

This is legally incorrect. As we have often emphasized, and explained in Matthews, the Court of Appeals has a settled rule of leniency for participation in agency proceedings, in contrast to the stricter rule for standing at the court level. Dorsey v. Bethel A.M.E. Church 375 Md. 59, 72 (2003) is the most recent in a long line of cases. Dorsey explicitly distinguished the relaxed rule in agency proceedings from the stricter standing rule for courts reflected in Bryniarski v. Baltimore County 247 Md. 137 (1967) and later cases. Indeed, the Bryniarski case made the same distinction. 247 Md. at 143.

Ms. Jones and SGCPC have legitimate interests beyond their immediate area. Such is the situation with R.C. Zone north county solar facilities, especially given the influx of multiple proposals. There spans an expansive interest in agricultural, scenic, and environmental protection across this territory. Each case influences the next, so the Matthews decision process may be the prologue. There are CBA cases on York, Monkton, Old York, Greystone, and Green Roads and Hanover Pike.

Respectfully, we disagree with the CBA's perspectives. We have to ask the CBA to reconsider and change. We explain our reasoning below.

8. Primary Function of Local Zoning for Land Use Review of Solar Facilities in Community Solar Pilot Program: the Only Public Hearing

"Like all detectives, must consider every possibility." Charlie Chan in Paris (1935)

Maryland has a Community Solar Pilot Program for facilities producing up to 2 megawatts. The county solar facility law provides land use review for such facilities.

Maryland Public Utilities law governs generating stations. Large generating stations and transmission lines are subject exclusively to Public Service Commission land use review for Certificates of Convenience and Necessity. Board of County Commissioners v. Perennial Solar 239 Md. App. 380, 385-88 (2018), cert. granted. But the law exempts from such PSC review certain facilities, including those producing less than 70 megawatts and serving a local utility. Md. Code Public Utilities Article Secs. 7-207, 7-208. The local zoning process comes into play for the BGE local program. The special exception process here provides the only public hearing for land use review.

At the other end of the spectrum is Baltimore County's development process. Petitioners produced a May 2, 2018 letter from the Director of Permits (PAI). This provisionally approved the Development Review Committee (DRC) recommendation for a limited development exemption from any further public hearing per County Code Sec. 32-4-106(a)(1)(vi). Pet. Exh. 20. App. 35. The attached County record reflects this approval. App. 34. This subsection allows such exemptions for:

> "The construction of residential accessory structures or minor commercial structures."

Petitioners' naming of this solar facility as a "minor commercial structure" is clearly false. Webster's Third New International Dictionary defines "minor" as:

> "...**1a** : inferior in importance: comparatively unimportant: lower in standing than others of the same kind >>>" App. 37.

The defective departmental approval may be attributable to the one-sided and informal DRC process, with its obscure internet public notice, perfunctory meeting, no hearing, no citizen rights, and no public notice of the decision. It is a murky charade. Again, the bottom line is that the present special exception process provides the only public hearing where citizens have an opportunity to be heard and there is a measure of transparency.

9. Statement of Facts

A. Setting the Scene

"The time has come, the walrus said, to talk of many things."
Lewis Carroll, The Walrus and the Carpenter, Through the Looking-Glass (1871)

Basic Site Geography: Cropland and Stream System: The 99.76 acre farm property is at the northeast corner of Freeland and Oakland Roads, both scenic rural two-lane roads. Pet. Exh. A-B. It is just over a mile west of I-83. P.C. Exh. 22, Maps 14-15. It is located in a Master Plan Agricultural Priority Preservation Area in the Loch Raven Watershed. It is also in a Maryland Targeted Ecological Area.

The trapezoid-shaped site stretches north uphill about 3000 feet along a curving Oakland Road toward Orwig Road and the Pennsylvania border. Its width is about 1400 feet on Freeland Road and about 2000 feet on its north boundary. The property includes a smaller area south of Freeland Road and a strip west of Oakland Road.

The land use corresponds to the geography. The northern corn and soybean cropland plateau reaches an elevation of 900 feet above sea level at the Pennsylvania line. This area along or near Orwig Road has been described as the highest elevation in the north county. Prot. Exh. 11, 34. For the most part, the plateau ranges between 860 and 880 feet. This is the location of the proposed solar facility.

From the plateau near the Pennsylvania line, the cropland slopes south and downward to a wooded Class III trout stream area with wetlands and a floodplain which starts at about 800 feet. Where it reaches Freeland Road, the stream is at about 750 feet, with topography to the sides. The land also slopes downward west toward Keller Road. In this geographic context, the plateau is highly visible.

The open areas --- the plateau, the area north of the stream, and the area south of Freeland Road --- occupy most of the property, with prime soils and soils of statewide importance, as detailed below. Prot. Exh. 59. The northern plateau is the most outstanding farm area, consisting 100% of various Glenelg soils which are prime or of statewide importance. P.C. Exh. 17. Prot. Exh. 60. The area above the stream appears to occupy the majority of the property, close to 60 acres.

The Neighborhood: North County Area of Interest: The GIS Aerial Photo, P.C. Exh. 19, shows the predominant area land use is agricultural, fitting the R.C. 2 Zone. The stream system is in the Loch Raven Watershed. Prot. Exh. 17.

There are farms to the west, around Keller and Oakland Roads, the large Keller and Whipperman properties; to the south, Bohlager, Davis, and Doster; to the East, Troyer, and Robert Rohe to the east/northeast.

Residences extend along Orwig Road to the north, where Nadine Lentz lives. Another line of residences borders Orwig/Heathcote Roads to the east, where Rohe lives, and across Freeland Road to the south. The density is low. There are no area commercial uses. There is a School for Living to the east, with a modest building.

A map shows many 100-year old homes in the wider area. Prot. Exh. 21. Other maps highlight the watersheds and stream systems, Prot. Exh. 17, 26, and the Agricultural Priority and Targeted Ecological Areas. Prot. Exh. 18, 19.

There came into evidence information about wildlife in the area from Nadine Lentz and Robert Rohe, including eagles and snapping turtles. As noted, the stream system is classified as a high quality trout stream.

Photographs, Maps, Reports, and Charts: If pictures are worth a thousand words, we have the major value of numerous aerial and land-based photographs of the property and adjacent areas. These were supplied mainly by Petitioners' consultant David Martin and by Lynne Jones. Pet. Exh.10, Prot. Exh. 3, 10, 14A-E, 15A-C, 16-A-O, 17, 35A-B, 37, 40, 51-56. Mr. Martin's photographs and Lynne Jones' panoramic photos particularly show the exquisitely beautiful northern farm area, Protestants' Nadine Lentz and Rohe produced photos of wildlife in the surroundings, such as snapping turtles and eagles. Prot. Exh. 10, 51-52. There were also submitted photos to show runoff and flooding problems associated with the stream system.

Maps may also be said to be worth many words. There are numerous area maps with varying scopes and perspectives:

> Petitioners Exhibits 16, 17, 19, 21: agricultural priority areas, targeted ecological areas, scenic roads/views; north county USDA area of interest;

People's Counsel Exhibits 19, 20, 22: GIS Aerial photo of area, GIS map of RC 2 and RC 7 Zones countywide, and ADC Street Atlas maps of area and north county roads.

Protestants' Exhibits 2, 5, 11, 17-19, 21-22, 26, 58: targeted ecological areas, stream classes, Nadine Lentz house and elevation, watersheds, agricultural priority areas, homes over 100 years old, scenic vs. non-scenic routes, north county area of interest.

Agriculture; Prime and Productive Soils: The parties presented much documentary evidence relating to the property, to the solar facility area, and then also to wider north county areas of interest for comparison purposes.

James Brewer, senior USDA soils scientist, produced a USDA Custom Soil Resource Report for the property. P.C. Exh. 17. Retired County Planner John J. Dillon, Jr. produced a report and opinion, which was identified but sustained an objection and was not admitted in evidence. P.C. Exh. 18. Petitioners responded by producing USDA website soils information for a 14,630 acre north county area of interest. Pet. Exh. 21.

Kathleen Pieper reviewed the USDA website and produced thereby an array of soils information for a much larger 78,159 acre area of interest. Prot. Exh. 58. She then broke it down for the property and proposed solar facility area. Prot. Exh. 59-61. To put this in perspective, she assembled a composite chart. Prot. Exh. 62.

We shall now highlight the major findings, beginning with Mr. Brewer's cover letter and report. In conclusion, he summarized:

> **"The Glenelg soils found on site, specifically in the northern half the of (sic) site are considered Prime Farmland soils (GdA, GdB) and statewide importance soils (GdC, GeC). The Glenville soils are also classified as Prime Farmland soils (GhB). As stated in the report document (page 33) these soils are best suited to food, feed, fiber, forage, and oilseed crops. The Glenelg and Glenville soils have some of the highest ratings for crop productivity on the site (page 50)."**

Mr. Brewer's 66-page Custom Soil Resource Report, replete with soil maps and charts, reviews Soil Resources (9-12) and Farmland Classifications (33-38), Hydric Ratings (41-44), National Commodity Crop Productivity (45-51), and Drainage Classes (53-56). His charts for the 97 acre site (12, 38, 44, 50, 56) show these valuable Glenelg and Glenville soils have excellent farmland classification ratings, low or moderate slopes, high crop productivity, and are well-drained. These occupy about 82 acres, 85% of the 97 acre site,

with 54.9 acres prime, 56.5%. Most important, they occupy 100% of the proposed special exception area with predominantly the prime GdA and GdB soils.

Kathleen Pieper is an engineer with management and farming experience. Her USDA website review effectively built on Mr. Brewer's report. Prot. Exh. 58-62. Her site chart mapped 99.5 acres. This showed 83.7 acres prime soils or of statewide importance, 84%; 55.7 prime, essentially tracking Brewer's chart. Prot. Exh. 59, 61.

Her chart for the 18.6 acre special exception area is especially telling. Prot. Exh. 60. This confirms 100% of these soils are prime or of statewide importance. Of these, 15.2 acres are in the exceptional prime GdA and GdB category and 0.9 acres in prime GhB, amounting to 16.1 acres of prime soils in the 18.6 acre area, 86.5%.

For comparison, Ms. Pieper mapped a 78.159 acre north county area of interest. Prot. Exh. 58. The Pennsylvania line is the north boundary; the south boundary runs roughly to the Mt. Carmel Road/Monkton Road corridor. The Carroll County line is the west boundary, with the area extending east to about the Harford County line.

Her map and charts for this north county area show a breakdown of 35.7% not prime farmland, 27,902 acres; 32.3% prime, 25,245 acres; and 29.8% of statewide importance, 23,291 acres. The website shows GdA at just 4.0%, 3126 acres; and GdB at 10.2%, 7972 acres. Notably, the GIS map shows this area is mainly zoned R.C. 2.

Ms. Pieper concluded this portion of her evidence with a composite chart. Prot. Exh. 62. This chart offers a comparison in one place of the relative proportions of the different types of soils for the north county area, the special exception area, and the site. The upshot is that the proposed solar facility will displace directly very rare and valuable soils. There will also be the effective obstruction of the rest of the prime and valuable soils next to the special exception area. Meanwhile, the north county area of interest includes over 51,000 acres which are not prime farmland.

Ms. Pieper also located several R.C. 2 locations in the north county which appear to be suitable in size, topography, and access for solar facilities but which are not prime farmland or on scenic roads. Prot. Exh. 68. This added specific corroboration to the general thrust that there is plenty of available R.C. 2 nonprime properties.

Leaving no TEA unturned, Ms. Pieper illuminated the importance of the Targeted Ecological Area location with two Maryland Department of Natural Resources slides showing these as "The Best of the Best" areas, Prot. Exh. 65-66. She complemented this with a Maryland Environmental Service Conservation Benefits Assessment of the property, delineating high ratings in this TEA for rare species and wildlife habitat, support of aquatic life, forests important for water quality protection, coastal community resiliency, and proximity to protected lands. Prot. Exh. 67.

Petitioners replied with a USDA website map and chart for a triangular north county 14,630 acre area. Pet. Eh. 21. The north boundary is again on the Pennsylvania line. But this smaller area runs from Middletown Road on the west to I-83 on the east, with these two roads then converging as they run southward at angles. Petitioners highlight the percentages of Glenelg and Glenville soils in the area: GdA, 5.2%, GdB, 14.3%; GdC, 12.4%; GeC, 11.9%; and GdB, 6.1%. The numbers for this much smaller area show slightly higher percentages than in Pieper's area, but still at very low percentages. They do not alter the picture.

Oakland Road Topography: Access Issues. Oakland Road slopes upward and bends left in the northerly direction before straightening as it reaches the plateau. This explains why the access is best available at the north end of the site. Because of the limited sight distance near and around the bend in the road, this is another hindrance to any post-solar facility potential farm use of the acreage in this area.

Scenic Roads: Freeland Road and Oakland Road are master plan designated scenic roads. This is the only solar facility case so far with a scenic road double.

As usual, Petitioners produce the Master Plan 2020 map which shows many scenic roads, as if this is routine. To contextualize, our office has surveyed the ADC Street Atlas for the north county, including maps 13-16, 18-21, and 23-26, east-west from Harford to Carroll County lines, north-south from the Pennsylvania line to Sparks. P.C. Exh. 22. We calculated that 82% of the roads --- 59 of 73 --- are not designated as scenic roads. App. 24, P.C. Exh. 23, ID. Moreover, a scan of the maps shows that many of these roads are significant and well-known roads in the north county.

Size: Exceedance of the Acreage/2Mw Limit: Our office surveyed the many current solar facility cases. P.C. Exh. 28. Kathleen Pieper also did a survey. Prot. Exh. 63. These prove solar facilities can function with about 5 acres per megawatt. ALJ Beverungen imposed a condition, albeit with approval, that the solar array be limited to 10 acres. The OneEnergy website is in accord, promoting 3Mw on 15 acres. Petitioners did not appeal the 2Mw/10 acre limit, yet present anew an excessive solar array of close to 15 acres in an 18.6-acre special exception area. Notably, most of the solar facility proposals occupy the best and flattest sections of the property, so the excessive size magnifies the destructive impact on the entire farm.

The Location of the Solar Facility: The placement of the solar facility on the visually prominent high plateau not only eliminates the best farm area, but also effectively blocks or displaces the rest of the plateau and hinders any potential use of the remaining middle acreage sloping southward, with a mix of prime and statewide important soils. There is no probative evidence of Petitioners' capability or intent to continue any farm use of the property. It is telling that the option agreement not only covers the special exception area, but also extends to the 49-acre northern farm section.

B. Witnesses; Expert and Lay Opinions

"All cards should repose on table when police are called upon."
Earl Derr Biggers, House Without a Key 144 (1925)

For every expert opinion, there must be a valid factual and legal basis. This is often a problem in zoning cases, where expert opinions tend to be subjective. In People's Counsel v. Beachwood 107 Md. App. 627, 649-50 (1995), cert. denied 342 Md. 472 (1996), the Court rejected a series of planning opinions, coincidentally by David Martin, one of Petitioners' experts here. Judge Charles Moylan wrote, quoting previous cases,

> The Court of Appeals and this Court have stated than an opinion, even that of an expert, is not evidence strong or substantial enough to show some error in the comprehensive rezoning unless the reasons given by the witness as the basis for his opinion, or other supporting facts relied on by him, are themselves substantial and strong enough to do so. ..." Internal citations omitted.

We shall show that Petitioners' expert opinions are inadequate. Ironically, the best expert evidence came from Paul Solomon's evaluation of the adverse impact on agriculture and

from the USDA website review and data provided by James Brewer's soil survey, with the addition of USDA data assembled by Kathleen Pieper.

Petitioners presented Martin, Matthew Durette, and Eric Hadaway, and Mitchell Kellman in their main case, and David Straitman in rebuttal.

Martin is a constant as a Petitioners' "expert" in the current run of solar facility cases. But his expertise is limited. He is a landscape architect, not an expert on agriculture. He has no relevant experience to qualify him as an interpreter of Resource Conservation Zone or Solar Facility legislation.

He presented the site plan. He defended stubbornly his decision to exclude any reference to soils. He rationalized that there is a zoning office checklist which does not enumerate a soils listing, as if a zoning office checklist could supersede the special exception criteria. He also went so far as to deny the plain language linguistic that soils are among the natural resources encompassed in BCZR Sec. 502.1.I.

Martin presented aerial and land-based photos. Pet. Exh. 10. Upon cross-examination as to the farm's beauty, he downplayed it. He answered affirmatively the follow-up question that, in his view, if you've seen one farm, you've seen them all.

Meanwhile, he conceded there would be visual impact, even with landscaping, but relied on satisfaction of the Landscape Manual and likely county staff approval as sufficient under the law. Pet. Exh. 11. He also had to admit that, even if helpful, it would take many years for the trees to grow. He downplayed the scenic road location as commonplace, but had not done a survey.

Matthew Durette, OneEnergy's engineer, described some technical features of the solar facility. He confirmed the special exception area as an 18.9 acre concept plan, with a solar array of 14.5 acres, the difference attributable to potential relocation of the array. However, he could not say with any clarity that 14.6 acres would be necessary here, just that it might. Otherwise stated, he wasn't sure they could get 2Mw on the 10 acres specified by the ALJ. He said the panels would be 8-9' high, although the site plan notes allow up to 20 feet. He claimed the panels do not contain toxic substances.

Eric Hadaway, of DMW, is an environmental consultant, though not an expert on soils. He delineated the locations of the stream/wetland/floodplain area, Pet. Exh. 14, but did not present a detailed study or Code Sec. 33-3-108 plan. He felt the distance from the facility to the stream area would attenuate the runoff heat and pollution impact and that there would be provided a stormwater management plan.

He suggested that farming could have a greater adverse impact, but he is not an expert on agriculture or soils. In any event, we objected, per Schultz v. Pritts, that it is improper to compare a special exception to a use permitted by right. He downplayed the Agricultural Priority Protection Area (APPA) and Targeted Ecological Area (TEA) status, but effectively admitted that the solar facility would block or hinder substantial additional acreage north and west of the special exception area.

Mitchell Kellman is DMW's Director of Zoning, but is not an expert on agriculture or soils either. He gave his boilerplate support for satisfaction of the special exception criteria. Following the usual promotional script, he termed any impact on agriculture irrelevant, including the APPA and TEA. He said most Master Plan major roads are scenic, Pet. Exh. 19, so as to minimize the impact here. But he did not survey the many north county roads which are not so designated.

In contrast, our office and Protestants countered Petitioners' hollow zero sum/negative evidence on agricultural impact. We presented Paul Solomon, the retired county planner who played a major role on the team which formulated the Resource Conservation Zones. His educational background includes planning and agricultural economics degrees from Georgetown and Penn State, respectively. He is himself an experienced farmer. He stills serves on the Shrewsbury Township Board of Supervisors. He has testified in many R.C. Zone cases, before and after retirement, and the appellate courts have cited his testimony and opinions with approval.

Solomon described the regional nature of farming in Baltimore, York, and Lancaster Counties, one of the nation's breadbaskets. He reviewed the site plan, photos and other exhibits, R.C. 2 Zone findings and purposes, special exception criteria, and Master Plan 2020. He visited the site and area for about 2 hours, viewing it from Oakland

Road and from Robert Rohe's adjacent property opposite. He reviewed Mr. Brewer's Soil Resource Report and Petitioners' USDA website excerpt of a 14,630 acre area of interest.

Solomon observed that the proposed location of the facility would displace Glenelg soils which are unique, and rank with the highest of the 125 soil types in Baltimore County. Furthermore, they are very rare in the north county, including Petitioners' chosen area of interest (GdA, 5%, GdB 14%). He escribe their depth, their exceptional storage capacity, and their constituents.

He enumerated the broader concerns about the impact of the proposed facility. He discussed critical mass, the importance of the character and integrity of an area for agricultural investment. Approval of the proposed facility would be a detrimental encroachment. This includes the effective loss of the Atkinson farm as a viable farm. It would also send a kind of message that county decision-makers accept the sacrifice of the best farmland, the best of the best, as he put it.

Solomon explained that solar facilities of this size can be accommodated on many other county R.C. and R.C. 2 Zone areas with nonprime or lesser soils. He noted, based on his experience, that the site selection here is likely based on the relative lower cost of rural land. But this goes against the R.C. 2 Zone legislative findings to preserve and protect prime farmland as well as the purpose of the solar facility legislation to balance the impact on agricultural land. He also identified and explained the conflict with the special exception requirement to prohibit detrimental impact on natural resources. Additionally, he identified the Master Plan 2020 designation and focus on APPAs as significant, recognizing that incremental development threatens the agricultural industry.

Under these circumstances, Solomon disagreed with Petitioners' contention that the County Council contemplated the placement of solar facilities on any farmland, regardless of quality and soil types. He also disagreed with Petitioners' effort to downplay the displacement as temporary. Even apart from the generational displacement, Solomon considered it inevitable that there would be adverse in-ground impacts of an indefinite or permanent character.

This brings us to the citizens. Area citizens often have knowledge and experience to enable them best to depict the neighborhood, its character, and likely adverse impacts. Inevitably, their observations mix or coalesce with opinions concerning the relevant adverse impacts and the function or intent of the zone in the locality.

To illustrate, Eger v. Stone 253 Md. 533, 540-43 (1969) held admissible the testimony of area resident Irma Raker. She did traffic investigation and research, with a list of accidents for the key intersection. The Court found her opinion legitimately contributed to the special exception denial. The Court reminded that hearsay evidence is admissible. Tauber v. County Board of Appeals 257 Md. 202, 213 (1970) followed,

> "The applicants also urge that some of the evidence produced by the protestants was 'hearsay' and not entitled to weight in overcoming the opinion and testimony of their traffic expert, but as we stated in Eger v. Stone, *supra,*
>
> > 'We have recently decided, however, that not only is hearsay evidence admissible in administrative proceedings in contested cases but that such evidence, if credible and of sufficient probative force, may indeed be the sole basis for the decision of the administrative body. ...."

Petitioners did not produce a single citizen witness to support their petition. The Atkinsons themselves did not testify. Remarkably, the Solar Energy Option Agreement between OneEnergy and the Atkinsons describes the area to be leased as extending to 49 acres, almost the entire farm area. P.C. Exh. 8. This suggests that their plan spans a much larger area than the current special exception.

In contrast, Protestants produced several citizen witnesses.

We have already reviewed Kathleen Pieper's cogent and comprehensive documentary portrait of the 100% prime and productive soils displaced by the solar facility and the particular character of such soils above and beyond the soils found generally in the north county and the R.C. 2 Zone. She documented that such soils are not "inherent" in the R.C. 2 Zone generally. She also corroborated, from her own experience at the site (which her ex-husband farmed) that the proposed location is on particularly valuable farmland. She also showed, by reference to the pattern in many other solar facility cases, that about 5 acres per megawatt is the norm.

We also described Ms. Pieper's illumination of the TEA. This includes the significant Conservation Benefits Assessment.

Ann Jones has master's degree in urban planning from the Johns Hopkins University and extensive experience in the field of land trusts, conservation, and rural legacy. Prot. Exh. 8. Despite this expertise (at least as good as Petitioners' witnesses), she was excluded as an expert, improperly in our view. In any event, she highlighted not only that the Atkinson property is in an APPA, but that its size differentiates it from many other properties and renders it especially inappropriate for a solar facility. She also underlined the problem of fragmentation of agricultural land, one of Mr. Solomon's points of emphasis, and the necessity of large acreages to warrant investment by tenant farmers in equipment, infrastructure, and resources.

Megan Billingsley, Valleys Planning Council (VPC) Assistant Director, presented a statement of opposition to the project. Prot. Exh. 9. This focused on the prime and productive soils, their finite supply, the nonsensical waste, the R.C. 2 legislative findings to prevent loss to urbanized development and conversion, and the urbanized intrusion into productive agricultural areas. The proposal thus conflicts with the general welfare of the locality and the purposes of the R.C. 2 Zone and Master Plan APPA designation.

Nadine Lentz, a 37-year adjacent resident on Orwig Road, focused first on area wildlife: bald eagles, bobcats, box and snapping turtles, coyotes, and deer. Prot. Exh. 10. She described the high elevation of the site, frequency of lightning strikes, high winds, and pollen. Prot. Exh. 11. She also identified the problem of toxic chemicals potentially involved in the cleaning of the panels, and worried about the impact on groundwater.

A longtime resident, she observed the facility will be visible from her property, notwithstanding landscaping. She is convinced the facility will devalue her property.

Robert Rohe, another longtime resident on Orwig Road, harvests trees. He echoed the concerns about visual impact of the immediately adjacent facility, saying that the area would look like an industrial wasteland. He too opined that his property value would suffer. Equally important, it would affect his enjoyment of his property. He also identified the wildlife in the area and had built a blind for observation.

John Altmeyer, the retired county building supervisor who lives on Orwig Road, expressed similar concerns. He focused mostly on the downward slope south of the plateau toward the stream system, the worry about stormwater runoff, and the lack of any evidence of a stormwater management plan.

Theaux Legardeur's testimony dovetailed with Altmeyer's. He is the Gunpowder Riverkeeper and has worked extensively on water resources issues. Prot. Exh. 4. He was accepted as an expert on water resources issues after much dispute. He identified the particularly high quality of the trout stream system. Prot. Exh. 5-6. While he could not say what effect the facility would have, his testimony reinforced Altmeyer's concern that there was no production of proof of an adequate stormwater management system.

We wrap up this citizen section with, Lynne Jones, the SPGCC President, a leader in many north county cases. After presenting the Rule 8 papers and a letter, Ms. Jones submitted a series of photographs she took in 2018 at various times. Prot. Exh. 14A-E, 15A-C, 16A-P. The color photos of the property and surroundings in Exhibit 16 are spectacular and comprehensive both geographically and in subject matter, including agricultural, stream and floodplain features, wildlife. Ms. Jones introduced this exhibit with a helpful my neighborhood aerial map marked numerically with the locations of the photos. Her next map shows the area lands already in agricultural preservation. Prot. Exh. 17. Next is a description of the Targeted Ecological Areas, including a DNR map showing this property in the center of a substantial such area. Prot. Exh. 18. This is followed by the Vibrant Communities and Sustainable Environment Sections of Master Plan 2020, focusing on Agricultural Priority Preservation Areas and the T-2 Agricultural Transect, for agricultural uses and buildings, and the Tier II and Trout Waters. Prot. Exh. 19-20, MP 2020 Pages 26-27, 149-54, 166.

Ms. Jones utilized these photos to describe how this site is particularly problematic and affected more adversely than other sites with respect to all these issues.

Ms. Jones next focused on the historic character of the area, with a map showing 29 houses, 11 more than 100 years old, and all but 3 more than 20 years old. Prot. Exh. 21. She highlighted Heathcote Mill, and included photos. Prot. Exh. 38(ID).

Turning to the roads, she found 23% of the substantial roads in the area are designated as scenic. Prot. Exh. 22. The streams and floodplains are again mapped in Prot. Exh. 26, and the topography in Prot. Exh. 34, confirming the descriptions in our section on Setting the Scene. Additional photos showed the swale running along the south side of Oakland Road and the open area, raising concerns about runoff and the vulnerability to high winds and storms. Prot. Exh. 35A-B.

Ms. Jones dramatized the impact of frequent summer storms and lightning with an aerial photo describing a storm August 31, 2018, 3-5 inches of rainfall in a few hours, and land-based photos. Prot. Exh. 37, 40. She posited that\ severe runoff could damage the panels, requiring reconstruction and repair activities detrimental to the area.

Ms. Jones researched and presented a series of online articles, to which the CBA Chair sustained objections. They are in for ID only. Prot. Exh. 23-25, 28-33, 45, 47. These pertained\to the "Lake Effect" (the name given to the injury to birds, who mistake the solar panels for lakes and fly into them); the impact on wildlife, both from the panels and the fences; the effect of pollen on panels, including the corrosive effect of cleaners; the toxic substances concerns relating to disposal of spent panels; the photovoltaic heat island effect; and the effect on trout. Given the elevated, open plateau along with evidence on mammals and birds in the area, and the watercourse situation, these articles should have been admitted. We address this in the next section.

In this context, Ms. Jones identified many particular adverse impacts:

(1) The prime and productive soils, Agricultural Priority Preservation Area, Targeted Ecological Area are particularly deserving of protection.

(2) Two scenic roads, Freeland and Oakland.

(3) The 900' elevation of the plateau aggravates the adverse visual impact on the scenic roads and residents.

(4) Two blind curves on Oakland Road, with safety affected by potential glare, even if Petitioners claim glare will be minimized.

(5) The stream on the property will be vulnerable to increased runoff, with high quality trout rating a particular concern.

(6) The location of the facility not only displaces the prime land directly but also blocks, slices, and hinders the working tenant farm, likely rendering investment questionable and making the land unsuitable for large machinery, and, furthermore, makes other tenant farmers anxious about the potential loss of their leased land to solar facilities.

(7) With lakes and ponds in the area, and eagle, water bird, insect and other animal habitat, there will be effects on wildlife, including the lake effect.

(8) The historic character of the area will be adversely impacted, including Heathcote Mill and the many older houses.

Petitioners replied with rebuttal relating to the visual impact of the facility on area residents. They produced David Straitment, an appraiser. Based on his evaluation of the impact of a solar facility in an area of West Friendship in Howard County, he concluded there would be no significant impact. Apart from the point that we see this as beyond the scope of rebuttal, Mr. Straitman's analysis appears doubtful because the neighborhood is quite different, more suburban, and he did not analyze whether the recent sales prices, which he found to hold up well, would have been higher in the absence of the facility.

Petitioners did not rebut any other evidence produced by the Protestants and our office. This includes the undisputed evidence on agriculture and soils provided by Mr. Brewer and Ms. Pieper, and Mr. Solomon's expert opinion.

Argument

Background

Structure of Zoning Law

Baltimore County tracks the "Euclidean" structure of comprehensive zoning with use, height, and area regulations. Village of Euclid v. Ambler Realty Co. 272 U.S. 365, 380 (1926); Loyola College 406 Md. at 70. There are in each zone a list of uses permitted by right and special exception. Unless a use is listed, it is prohibited. BCZR Sec. 102.1; Kowalski v. Lamar 25 Md. App. 493, 496-99 (1975); People's Counsel v. Surina 400 Md. 662, 688 (2007). There are major differences between uses by right and special exception. A use permitted by right is permitted in the zone even if there are potential adverse impacts particular to the location, and there is arguable disharmony with the

area's comprehensive zoning plan. But a special exception must have a hearing process and meet the relevant legislative criteria, as further explained in the case law.

Some locations are appropriate, but others not. The task is to differentiate the particulars, the concordant from the discordant. The meaning of "particularity" has to do with the site's location and area. Notably, to be disapproved, it is not required that the CBA find the location be the worst in the zone, just that the adverse impacts relate particularly to the location and not be "inherent" throughout the zone, and/or that there is said disharmony. A classic "inherent" adverse impact, i.e., not "particular," would be the arguable depressing effect of a funeral home, similar anywhere in the zone.

To repeat, Bill 37-17 designates solar facilities as special exception uses. This means some locations are inappropriate. Otherwise, the Council would have made them by right. The Bill's legislative findings, discussed below, confirm this distinction, highlighting the necessity to safeguard the County's agricultural land and environment.

Land Use Law Contextualized: Master Plan, Zoning, and Development

The master plan, zoning, and subdivision (development) regulations are three integral parts of adequate land planning. Board of County Comm'rs v. Gaster 285 Md. 233, 246 (1979). They are not isolated. Judge Marvin Smith added, 285 Md. at 249-50,

> "Subdivision regulations perhaps have a certain analogy to special exceptions to which the floating zone concept has been likened in this Court's discussion in such cases as Bigenho v. Montgomery County, 248 Md. 386, 391, 237 A.2d 53 (1968); Board v. Turf Valley, 247 Md. 556, 561-62, 233 A.2d 753 (1967); and Chatham Corp. v. Beltram, 243 Md. 138, 149-50, 220 A.2d 589 (1966). The county here has preordained by its subdivision regulations that one who seeks to cut up a larger tract by creating a subdivision must not disrupt the master plan and that the subdivision must be compatible with that master plan."

Zoning and development controls are "intended to complement each other in terms of the safety, health, and general welfare of the community at large." People's Counsel v. Surina 400 Md. 662, 688-93 (2007). They "... serve additional common [land use] objectives ..." 400 Md. at 689. The Court quoted Wesley Chapel Bluemount Ass'n v. Baltimore County 347 Md. 125 (1997) to confirm these complementary land use controls "... to some extent coalesce, in that they are all designed to assure that land development

occurs in a manner that is consistent with overall legislative policy and community welfare." 400 Md. at 690.

Baltimore County Zoning Regulation 600 reinforces the point that all laws must be satisfied. Zoning regulations set minimum standards in relation to other relevant laws. P.C. Exh. 12. Correlatively, other laws, ordinances, or regulations which impose higher standards must also be satisfied as minimum standards. There are no loopholes.

Bill 37-17 also links zoning to development law directly in BCZR Sec. 4F-104.A.9. This requires the applicant to comply with Code Sec. 33-3-108, "Plan Information," under Article 33, Title 3, "Protection of Water Quality, Streams, Wetland, and Floodplains." P.C. Exh. 13. This includes multiple listed environmental elements. Other requirements of Sec. 4F-104 blend zoning/development requirements, such as for easements, historic districts, conservancy areas, landscaping, and lighting.

Master Plan 2020 also plays a role. County Charter Sec. 523 is in the appendix. App. 1. This requires a master plan "to serve as a guide for the development of the county," Sec. 523(a); and the establishment of zoning maps "consistent with the master plan. Sec. 523(b). The Court of Appeals recognizes the master plan as advisory in zoning cases. The master plan elevates to regulatory status where there is a statutory mandate, as in our development cases. See Nottingham Village v. Baltimore County 266 Md. 339, 353-55 (1972). Mayor & City Council v. Rylyns Enterprises 372 Md. 514, 530 (2002); HNS Development v. People's Counsel 425 Md. 436, 457-58 (2012).

Prologue to Interpretation of Maryland Special Exception Law

"Sometimes, in an acute situation, such as this, often what is right can take on multiple interpretations." Jared Cohen in the film Margin Call (2011)

The material facts are not genuinely in dispute. There is no shortage of opinions about what they mean and the proper legal outcome. In the end, there are many key issues of legal interpretation which will determine the outcome. We shall undertake to plow through these issues in a systematic way as best we can.

Linguistic Navigation: A Zoning Odyssey: Guide for the Perplexed

"If language be not in accordance with the truth of things, affairs cannot be carried on to success." Confucius, Analects, Book XIII Chapter 3

If we posit that the special exception is properly named, along with judicial criteria, let us chart the language, using Webster's Third New International Dictionary:

special: 1: distinguished by some unusual quality: UNCOMMON, NOTEWORTHY, EXTRAORDINARY ....

exception: 1: the act of excepting or excluding : exclusion or restriction ...by taking something out that would otherwise be included ....

limited: 1 a : confined within limits : restricted in extent, number, or duration ... **2:** characterized by enforceable limitations prescribed ... upon the scope or exercise of powers

harmony : 3 : combination into a consistent whole : INTEGRATION

burden: *n* **1 a:** something that is carried : LOAD ... **c** something that is borne as a duty, obligation, or responsibility ...3 something that oppresses, weighs down, or causes worry

burden of proof : the duty of proving a disputed presumption, assertion, or charge .... *specif.* the duty of proving a particular position under penalty against the party upon whom the duty is imposed in a court of law

prima facie: *adj* **1:** based on immediate impression : APPARENT **2** generally applicable but admitting of suspension in a given case ...

prima facie evidence : evidence sufficient in law to raise a presumption of fact ...

presume: 1 to take upon oneself without leave, authority, or warrant: undertake rashly: DARE ... **2** to look confidently forward to : ANTICIPATE, EXPECT ... **3** to accept as true or credible without proof or before inquiry : ASSUME, INFER, SUPPOSE ... **4** : to raise a presumption of or that : take for granted: IMPLY

presumption ... 3 *law* **:** an inference as to the existence of the fact not certainly known from the known or proved existence of some other fact, sometimes operating as evidence, sometimes as a rule of procedure as to who must proceed with evidence on the main issue, or as to who has the burden of proof and sometimes having no effect as evidence, once the evidence on the issue is in --- distinguished from *fiction*

presumptive : 1 a giving grounds for reasonable opinion or belief ... **b** based on probability or presumption ... **2** *archaic* presumptuous ... **3** : based on inference : APPARENT, PRESUMED ...

presume [Latin, www.archives.nd.edu] praesumo –sumere -=sumpsi –sumptum [to take beforehand; to anticipate; to take for granted]. Hence partic. preaesumptus –a –um, [taken for granted, **presume**d].

We draw two main lessons from this definitional matrix.

The first is the conflict, tension, and confusion between "special, exception, limited, burden of proof, and harmony," and "prima facie, presume, presumption, and presumptive." Suffice it say that Judge Charles Moylan spotlighted the perplexing, heterogeneous, loose, and slippery character of "presumption" in evidence law, citing the major treatises on evidence. Cooper v. Singleton 217 Md. App. 626, 627-28 (2014).

Nevertheless, it is established the applicant has the burden of proof. Schultz v. Pritts 291 Md. 1, 11 (1981). The "presumption" tends to moderate this burden to production of "substantial" evidence, but does not erase it. See Turner v. Hammond 270 Md. 41, 55 (1974). There has thus never been any shift of the burdens of production and persuasion. We will see how Judge Glenn Harrell and Joseph Murphy provide context in People's Counsel v. Loyola College 406 Md. 54 (2008).The definitional meanings vary.

As we navigate special exception analysis, we must guard against the danger that the presumption may cause unintended decision-making consequences. As in Homer's Odyssey, it may become Circe, a seductress who bewitches understanding and tempts the unwary to doom. Like Odysseus, we must get past her charms to our own Ithaca.

"Words are for getting meaning; after one gets the meaning, one forgets the words. Where can I find people who have forgotten words, and have a word with them? Zhuangzi, Ch. 26.

Genesis

"Let there be light." Genesis 1:3

Montgomery County v. Merlands 202 Md. 279, 290 (1953) begins this tale. The zoning board had treated the private club special exception like a variance, requiring proof of "urgent necessity." Judge Hall Hammond explained (pages 287-88) the different legislative intent for the special exception to,

> "... delegate to the Zoning Board a ***limited authority*** to permit enumerated uses which legislative body finds in effect ***prima facie*** properly residential, absent any fact or circumstance in a particular case which changes this ***presumptive finding***. The duties given the Board are to ***judge whether the neighboring properties and the general***

> ***neighborhood would be adversely affected, and whether the use, in the particular case, is in harmony with the general purpose and intent of the zoning plan."*** Emphasis supplied.

Judge Hammond went on to delineate the applicant's burden of proof,

> "The applicant for such a use need not show either practical difficulty, unnecessary hardship or great urgency, but only that the project is a private club and that it would be in general harmony with the zoning plan and would not adversely affect the neighboring properties and the general neighborhood." 202 Md. at 290.

Merlands did these notable things: 1) recognize the special exception; 2) articulate the adverse effect/zoning plan disharmony standards; 3) affirm applicant's burden of proof; and 4) differentiate the variance's more onerous standards.

Merlands' allusions to *"prima facie"* and "presumptive finding" functioned to distinguish special exceptions from variances. They did not relieve an applicant from the burden of proof. They did not signal a *carte blanche,* green light, or perfunctory review.

After Merlands

In their 1955 comprehensive legislative revision of the zoning regulations, there were included BCZR Secs. 502 and 502.1. App. 12. For the 1950s, 1060s, and early 1970s, our research came up with 18 Court of Appeals decisions on special exceptions. We list them in the appendix. App. 13. To make a long story short, these cases show 5 approvals, 4 approvals with conditions (two over applicant's objection), and 9 denials. The Court treated special exceptions as involving applicant's fair and normal burden of proof with careful, detailed scrutiny. These cases show that special exception review is not intended to be boilerplate *pro forma*, routine, or semi-automatic

The Path to Schultz v. Pritts

Court of Appeals decisions came less often with the advent of the Court of Special Appeals (CSA). Such cases as Rockville Fuel & Feed Co. v. Gaithersburg 257 Md. 183 (1970) and Turner v. Hammond 270 Md. 41 (1973) restated and applied the Merlands presumption and the applicant's affirmative burden of proof.

In 1974, Judge Rita Davidson authored Anderson v. Sawyer 23 Md. App. 612. This foreshadowed her landmark Court of Appeals opinion in Schultz v. Pritts 291 Md. 1

(1981). Both involved funeral homes in residential areas. Anderson explained the concept an "inherent" adverse impact, regardless of location, could not justify denial, i.e. the "depressing" effect of a funeral home. Rather, the "particular" adverse effects must be above and beyond those likely to occur generally in the zone.

Schultz emphasized the difference between uses by right and special exceptions. In permitting a use by right, the legislature anticipates there may be particular locational adverse impacts. But such impacts would be unacceptable for a special exception.

Schultz overruled Gowl v. Atlantic Richfield 27 Md. App. 410, 417-18 (1975). The CSA had held that if special exception adverse impacts were no worse than from a use permitted by right, then it would be entitled to approval. Judge Davidson rejected this such equivalency and explained the scope of the inquiry. 291 Md. at 11,

> "This Court has frequently expressed the applicable standards for judicial review of the grant or denial of a special exception use. The special exception use is a part of the comprehensive zoning plan sharing the presumption that, as such, it is in the interest of the general welfare, and therefore, valid. The special exception use is a valid zoning mechanism that delegates to an administrative board a limited authority to allow enumerated uses which the legislature has determined to be permissible absent any fact or circumstance negating the presumption. The duties given the Board are to judge whether the neighboring properties in the general neighborhood would be adversely affected and whether the use in the particular case is in harmony with the general purpose and intent of the plan.
>
> Whereas, the applicant has the burden of adducing testimony which will show that his use meets the prescribed standards and requirements, he does not have the burden of establishing affirmatively that his proposed use would be a benefit to the community. If he shows to the satisfaction of the Board that the proposed use would be conducted without real detriment to the neighborhood and would not actually adversely affect the public interest, he has met his burden. The extent of any harm or disturbance to the neighboring area and uses is, of course, material. If the evidence makes the question of harm or disturbance or the question of the disruption of the harmony of the comprehensive plan of zoning fairly debatable, the matter is one for the Board to decide. But if there is no probative evidence of harm or disturbance in light of the nature of the zone involved or of factors causing disharmony to the operation of the comprehensive plan, a denial of an application for a special exception use is arbitrary, capricious, and illegal."

The "presumption" is thus not a free pass. Judge Davidson described the zoning board's "limited authority," its duty to judge adverse impact and harmony with the comprehensive zoning plan. She reminded that the burden of proof is on the applicant to

satisfy the prescribed standards relating to detriment to the neighborhood and, significantly, the public interest. She proceeded to discuss various scenarios.

Because the CSA had applied an incorrect standard, the Court vacated its decision and remanded for further consideration, especially as to the disputed traffic access issue.

Then came Board of Co. Comm'rs v. Holbrook 314 Md. 210 (1988). The Court sustained denial of a special exception for a mobile home based on the particular adverse visual impact and depreciation of value of a single-family detached dwelling. Judge Cole wrote, "The Schultz test accords with the general standard for judicial review of the ruling of an administrative agency." 314 Md. at 218. The Court described "countless locations in the zone" where there would be no such adverse impact.

Court of Special Appeals: Mangione, Country Ridge, Lucas

The CSA sustained this CBA's denials in People's Counsel v. Mangione 85 Md. App. 738 (1991), convalescent home, residential zone; People's Counsel v. Country Ridge Shopping Center 144 Md. App. 580 (2002), pawnshop, business zone; and Lucas v. People's Counsel 147 Md. App. 209 (2002) helicopter landing area, R.C. 2 agricultural zone. To make a long story short, this CBA focused on evidence of adverse impacts particular to the property and neighborhood. Such adverse effects were found, explicitly or by inference, above and beyond those likely to occur generally in the zone.

People's Counsel v. Loyola College: The Harry Potter Series "Sorting Hat" and Judge Joseph Murphy's Rules of Engagement

"The right thing in the wrong place." Euclid v. Ambler Realty Co. (1926)

This brings us to People's Counsel v. Loyola College 406 Md. 54 (2008) and Judge Glenn Harrell's encyclopedic review. 406 Md. at 70-107. This CBA had approved a special exception for a retreat center in the R.C. 2 Zone. We argued the CBA had failed expressly to review the evidence relative to other sites we viewed as less problematic. The Court decided that such review is not necessarily required where the evidence indicates an absence of particular adverse effects or incompatibility with the area. He also observed that a zoning board could find particular adverse effects inferentially without doing a comparative analysis based on an individualized review of the evidence.

Otherwise stated, Judge Harrell did not say a comparative analysis is irrelevant or impermissible, just that it is not required under some circumstances. Remarkably, he compared special exception analysis to a Harry Potter "Sorting Hat," 406 Md. at 106,

> "In that sense, the legislature puts on its 'Sorting Hat,' and separates permitted uses, special exceptions and all other uses."

Judge Joseph Murphy concurred, with rules of engagement, 406 Md. at 109-10,

> "It may be helpful to restate the rules of engagement in special exception litigation, and review how those rules were applied in the case at bar. Although it is of no real consequence whether we say that an applicant "is entitled to a special exception, *provided that,*" or that an applicant "is *not* entitled to a special exception, *unless,*" the applicant for a special exception bears both the burden of production and the burden of persuasion on the issue of whether the special exception should be granted. If the zoning authority is presented with evidence that generates a genuine question of fact as to whether the grant of a special exception would violate the applicable legislation and/or the requirements of *Schultz,* the applicant must persuade the zoning authority by a preponderance of the evidence that the special exception will conform to all applicable requirements.

All the parties provided substantive evidence about traffic and environmental impacts. These were not deferred to the development process. While the CBA has a degree of discretion on debatable issues, there is law to apply to the particular facts in each case.

Recently, Attar v. DMS Tollgate 451 Md. 272 (2017) affirmed, as fairly debatable, this CBA's approval of an Owings Mills fuel service station/convenience store.

Judge Harrell's "sorting hat" metaphor and Judge Murphy's rules of engagement convey that decision-makers must be disposed to rubber stamp their approval every time.

Scope of Key Special Exception Criteria

Health, Safety, Welfare; Purpose of Zone; Stormwater Management; Environment and Natural Resources; Agriculture; Prime Soils; Visual Impact

To facilitate review, we quote BCZR Sec. 502.1 and the prefatory Note, App. 12.

> "NOTE: Certain types of uses are required to secure a permit to allow them to be placed in one or more zones in which their uncontrolled occurrence might cause unsatisfactory results of one kind or another. A few uses, such as dumps and junkyards, are inherently so objectionable as to make extra regulations and controls advisable even in the M.H. Zone, to which they are restricted. Others, like a cemetery, do not fit into any of the zone categories, that is, residential, business and industrial, and therefore must be located with discrimination in relation to their surroundings. All the items listed are proper uses of land, but have certain aspects which call for special consideration of

each proposal. Because under certain conditions they could be detrimental to the health, safety or general welfare of the public, the uses listed as special exceptions are permitted only if granted by the Zoning Commissioner, and subject to an appeal to the County Board of Appeals.

In granting any special exception, the Zoning Commissioner and the County Board of Appeals, upon appeal, shall be governed by the following principles and conditions.

§ 502.1. - Conditions determining granting of special exception.
Before any special exception may be granted, it must appear that the use for which the special exception is requested will not:

A. Be detrimental to the health, safety or general welfare of the locality involved;
B. Tend to create congestion in roads, streets or alleys therein;
C. Create a potential hazard from fire, panic or other danger;
D. Tend to overcrowd land and cause undue concentration of population;
E. Interfere with adequate provisions for schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements;
F. Interfere with adequate light and air; [Bill No. 45-1982]
G. Be inconsistent with the purposes of the property's zoning classification nor in any other way inconsistent with the spirit and intent of these Zoning Regulations; [Bill No. 45-1982]
H. Be inconsistent with the impermeable surface and vegetative retention provisions of these Zoning Regulations; nor [Bill No. 45-1982]
I. Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5 or R.C.7 Zone, and for consideration of a solar facility use under Article 4F, the inclusion of the R.C. 3, R.C. 6, and R.C. 8 Zones."

The BCZR Sec. 502.1.A "health, safety, or general welfare" clause translates to the state and local police power. This is an essential function of government and is construed broadly. Village of Euclid v. Ambler Realty Co. 272 U.S. 365 (1926). The Court of Appeals recognizes the police power extends to natural resources and the environment. Potomac Sand and Gravel Co. v. Governor 266 Md. 358, 370-75 (1972); Mayor and City Council of Annapolis v. Annapolis Waterfront Co. 284 Md. 383 (1979).

The appellate courts have also recognized the relevance of visual impact and adverse effect on area property values. Board of County Comm'rs v. Holbrook 314 Md. 210 (1986); People's Counsel v. Mangione 85 Md. App. 738 (1991). Correlatively, Master Plan 2020 reinforces this public interest and concludes, P.C. Exh. 14, page 101,

> "9) For properties along scenic routes, or within scenic viewshed, variances, amendments and special exceptions should be granted sparingly".

While "locality" in special exceptions usually focuses on surroundings, the locality here encompasses the site. Ruark v. Engineers Union 157 Md. 576 (1929) explained:

> "While "locality" is a word of relative meaning, its context commonly determines its meaning . . . .
>
> * * *
>
> Thus it appears that the word "locality" has a place in important and enforced legislation; and, whatever may be the scope of its varying significance, its meaning in a particular statute is susceptible of being determined from the context, since the words of a statute are to be understood in the sense in which they best harmonize with the subject of the enactment and the object which the Legislature had in view. Endlich on the Interpretation of Statutes, § 73. When so read, it is quite evident that, in the statute before the court, "locality" imports the area which embraces, not only the actual site where the public work is to be performed, but also such adjoining territory within which there then prevails a current rate of daily wages for the particular work to be done. In other words, "locality" defines a region, with the public undertaking as an axis or focal point, throughout which region the daily wage of the particular class to which the worker belongs is uniform."

The context here is the R.C. 2 Zone legislative findings and purpose, which focus on the prime agricultural lands and soils. This is confirmed by subsection I, discussed below.

The Council added BCZR Secs. 502.1.G and H in 1982. Subsection G focuses on the legislative intent of the zone. The scope is broad, including water resources as well as agricultural lands and resources. Subsection H embraces stormwater management.

The Council added Sec. 502.1.I in 2000 with Bill 74-2000. This addresses detriment "to environmental and natural resources of the site and vicinity" in designated R.C. Zones. It is elementary that prime and productive soils are natural resources: "A finite non-renewable resource." United Nations Food and Agriculture Organization www.fao.org App. 26; "Soil is one of the world's most important natural resources." soil-net.com, App. 28; soil as a natural resource, multiple worldwide links. App. 29.

Furthermore, placement of the word "including" prior to "forests, streams, wetland, aquifers and floodplains" does not express or imply the exclusivity of these listed resources. To confirm and verify this point, Judge Alan Wilner wrote in Housing Authority v. Bennett 359 Md. 356, 371 (2000):

> "Although this Court has stated that "'[o]rdinarily, the word "including" means comprising by illustration and not by way of limitation,' " *State v. Wiegmann,* 350 Md.

585, 593, 714 A.2d 841, 845 (1998), quoting *Group Health Ass'n v. Blumenthal,* 295 Md. 104, 111, 453 A.2d 1198, 1203 (1983), we have also recognized that, "[w]hile 'include' or 'including' may introduce illustrations of a general term, the words also may signal an expansion in meaning of previous language." *Pacific Indem. v. Interstate Fire & Cas.,* 302 Md. 383, 396, 488 A.2d 486, 492 (1985).

In Wiegmann, Judge Dale Cathell had prefaced the above quote, 350 Md. at 593,

> "In construing the rule here, we are mindful of the principle that the expression of one thing is generally the exclusion of another. *Long,* 343 Md. at 666, 684 A.2d 445; *Leppo,* 330 Md. at 423, 624 A.2d 539. On the other hand, the use of the word "including" suggests that the seven enumerated powers are not exclusive."

I. Statutory Construction: The Particular Impact on Agriculture Is a Key Issue; Petitioners Failed Utterly to Meet this Criterion; and the Undisputed Evidence Showed Major Particular Adverse Effects at this Location

"And therefore never send to know for whom the bell tolls; "It tolls for thee."
John Donne, No Man Is an Island (1624)

John Donne's poem conveys our connectedness in the world. It is a metaphor for tipping points. This resonates in our analysis here of the impacts on agricultural lands.

Petitioners assert that the impact on agricultural land is irrelevant in the R.C. 2 Zone. They presented no proof on the issue. Petitioners thus failed to satisfy their burden of proof under Judge Murphy's Rule of Engagement. In contrast, we showed the impact on agriculture is a critical issue for a solar facility special exception.

The Baltimore County Council established the initial Resource Conservation Zones in 1975: R.C. 2, R.C. 3, R.C. 4, and R.C. 5, Bill 98-75. See Security Mgt. Co. v. Baltimore County 104 Md. App. 234, cert. denied 339 Md. 643 (1995). BCZR Sec. 1A00 provides "General Provisions for All R.C. Classifications." BCZR Sec. 1A00.1 sets forth the Findings. Among other things, BCZR Sec. 1A00.1.F refers to the cost of development which involves "the consumption and use of prime agricultural land ..." Sec. 1A00.2 sets forth the Purposes. This includes BCZR Sec. 1A00.2.C:

> "C. Protect both natural and man-made resources from compromising effects of specific forms and densities of development"

For the R.C. 2 Zone, BCZR Sec. 1A01, subsection 1A01.1.A provides the Legislative statement of findings, P.C. Exh. 11, App. 3,

"A. Legislative statement of findings.

1. Declaration of findings. It is found:

a. That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;

b. That the agricultural industry is an integral part of the Baltimore economy and that a continued conversion of agricultural land will continue to undermine this basic industry;

c. That scattered development is occurring in a sporadic fashion in areas of Baltimore County containing productive agricultural land;

d. That continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area;

e. That heretofore Baltimore County has been unable to effectively stem the tide of new residential subdivisions in productive agricultural areas of Baltimore County;

f. That Baltimore County has certain wetlands along Chesapeake Bay and its tributaries which serve as breeding grounds and nursery areas for the bay's biotic life; and

g. That Baltimore County possesses numerous areas which are highly suitable for urban development, including residential subdivisions which are not located in areas of productive agricultural land."

Six of these seven findings refer to preservation and protection from loss of "very productive agricultural soil types," "agricultural industry" and "agricultural land," "productive agricultural land," and "productive agricultural areas." They intend to protect such areas from scattered suburban and commercial uses.

There follow the purposes. BCZR Sec. 1A01.1.B:

"B. Purposes. The R.C.2 zoning classification is established pursuant to the legislative findings above in order to foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses."

These findings and purposes have remained since 1975. Judge Glenn Harrell discussed them in People's Counsel v. Surina 400 Md. 662, 684-85 (2007), App. 14.

Moreover, Bill 37-17's statement of purpose explains, BCZR Sec. 4F-101,

"The purpose and intent of this article is to permit solar facilities in parts of the rural and commercial areas of the County by special exception, and to balance the benefits of solar energy production with its potential impact upon the County's land use policies by ensuring sufficient safeguards are in place to protect the County's communities and its agricultural land, forests, waterways, and other natural resources. Emphasis supplied

This plainly covers not only water resources, but also agricultural land.

Master Plan 2020 reinforces these legislative statements in its section on Rural Communities. P.C. Exh. 14 Pages 91-102. App. 17. This includes the establishment of Agricultural Priority Preservation Areas. Pages 92-93. It is stated,

> "Despite the diligent efforts to maintain and expand the agricultural zoning, incremental development continues to threaten the protection of resources and the viability of the agricultural industry."

Consideration of prime and productive soils on the site and in the area is thus a central inquiry in an R.C. 2 Zone special exception case. This includes preservation of the critical mass of properties to sustain the agricultural industry.

As noted, the CBA inferred in Matthews that the Bill 37-17 solar facility special exception allows destruction of any and all farmland at any R.C. 2 location. This is an errant statutory construction of special exception law. The protection of prime and productive soils is at the heart of the R.C. 2 Zone legislative intent. To read them out of solar facility special exception analysis is Orwellian.

Legislation "... usually has some objective, goal, or purpose. It seeks to remedy some evil, to advance some interest, to attain some end." Kaczorowski v. Baltimore, 309 Md. 505, 513 (1987). The Court cited Justice Holmes' concept that "the general purpose is a more important aid than any rule which grammar or formal logic may lay down." Ibid. Board of Physicians v. Mullan 381 Md. 157, 168 (2004) reiterated,

> "...we 'avoid constructions that are illogical, unreasonable, or inconsistent with common sense..., and instead interpret and harmonize statutes as a whole, giving meaning and effect to all parts of the statutory language and refraining from interpretations that render any part of a law surplusage or contradictory."

Baltimore County Coalition Against Unfair Taxes v. Baltimore Co., 321 Md. 184, 203-04 (1990) echoed,

> "Thus, we have said that a statute must be construed in context, because the meaning of the 'plainest language may be governed by the context in which it appears.'... In this regard, words in a statute must be read in a way that advances the legislative policy involved. ... Courts may, therefore, consider not only the literal or usual meaning of those words, but their meaning and effect in the context in which the words were used, and in light of the setting, the objectives, and purpose of the enactment. ... Moreover, in such circumstances, courts may consider the consequences that may result from one meaning rather than another, with real intent prevailing over literal intent."

See Lipitz v. Hurwitz 435 Md. 273, 281-91 (2013); Blue v. Prince George's County 434 Md. 681, 689 (2013); In re Adoption of Tracy K 434 Md. 198, 206-07 (2013); and Bourgeois v. Live Nation 430 Md. 14, 26-28 (2013).

As we have shown, the special exception impacts to public health, safety, or general welfare; the legislative intent of the zone, and environment and natural resources all directly embrace and encompass agricultural land and prime and productive soils. To blow off the impact on the particularly prime and productive soils at this location translates to an egregious insult to the legislative intent.

Petitioners stick stubbornly to their position that the issue is irrelevant on the basis that Bill 37-17 makes all agricultural lands fair game. They provided no proof in their main case and no rebuttal when they had the chance. They failed to meet their burden.

Meanwhile, there is no genuine dispute about particular adverse impacts on agriculture and prime soils. Nor is there any genuine dispute about disharmony with the findings and purposes of the R.C. 2 Zone. We have reviewed in detail Mr. Brewer's USDA Report, Kathleen Pieper's website data and charts; Paul Solomon's testimony; evidence from other witnesses, and maps, photographs, and other exhibits. The evidence is qualitative and quantitative. Mr. Solomon's opinions as to the particular adverse impacts and disharmony with the R.C. 2 Zone area especially were comprehensive, cogent, and undisputed. If the burden of proof were ours, we satisfied it.

This evidence included data showing many R.C. 2 areas with nonprime soils and even particular properties potentially available. The CBA Chair said in Matthews that such would be irrelevant under Loyola. We read Loyola as giving the CBA discretion as to consider alternative sites depending on the evidence. Either way, application of the Schultz test here compels the conclusion that the particular locational adverse impacts are above and beyond those ordinarily likely to occur at other properties in the zone.

As a kind of footnote, we submit that John Dillon's report should have been admitted, both because hearsay is admissible and because the CBA consistently admitted Petitioners' hearsay evidence. In view of Mr. Solomon's testimony, Mr. Dillon's report

and opinions became unnecessary to make our argument. Nevertheless, his helpful report corroborates some of the points made later by Mr. Solomon.

Piercing the Veil: The "Can't Be Forced to Farm" Red Herring

Petitioners repeatedly assert and virtually threaten that no one can be forced to farm their property. There is nothing in the special exception law which exempts Petitioners based on their use or disuse of the property. This does not tell us anything about the proposed special exception use, its particular impacts at the chosen location, and harmony or disharmony with the comprehensive zone plan. A petitioner for any special exception could assert they will do nothing with their property if they don't get their special exception. This sort of threat is irrelevant and offensive legally and factually.

This prime farm property has been tenant farmed for many years. If this special exception is denied, it would be irrational and counterproductive, and self-spiting for the Atkinsons to forego income available from continuing to lease the prime farm property.

II. Statutory Construction: Petitioners Failed to Satisfy the Visual Impact Criteria Relating to Scenic Roads and Effect on Area Property Values

"All those [ugly solar facilities], where do they all come from? All those [ugly solar facilities], where do they all belong?" Inspired by The Beatles, Eleanor Rigby

Solar facilities are ugly. There is no getting around it. This facility will stand out because of its peak altitude. It may be up to 20 feet in height, regardless of the disclaimers. Even at a lower height, it will be unsightly. The topographic contours show it at the high point for this area.

County Council Bill 121-01 has provided a broad definition for "*Scenic viewshed.*" It is codified in Code Sec. 32-4-101(uu):

> "*Scenic viewshed.*" 'Scenic viewshed' means a scenic route or scenic view as designated in the mas0ter plan."

There follows a definition of "Scenic viewshed elements," which refers to visual elements of such quality, character, and nature for the Planning Board to designate as such in the master plan. Code Sec. 32-4-101(vv). We have already cited Master Plan 2020 guidance that along scenic routes, special exceptions should be granted sparingly.

There is no genuine dispute that this sizable property is uniquely situated along two scenic roads. The location is prominent. The area and view along Oakland Road is especially spacious. There are immediately adjoining residences along Orwig Road.

Moreover, the surrounding area is relatively unspoiled, a traditional rural area of farms and older residences. It is not suburbanized, relative to some rural areas.

Petitioners main thrust here is that they will do landscaping required by the Landscape Manual and have met with the County Landscape Architect Mr. Herrmann to do this. They believe satisfaction of this requirement in Bill 37-17 translates to satisfaction of the special exception requirement. We disagree. For reasons given below in **Statutory Construction IV**, there still must be special exception review. Based on the evidence, even with landscaping, there remain particular problems and adverse impacts.

To begin, even if the landscaping is viewed as helpful, it takes time for trees to grow, and once grown, they must be maintained. This plateau is subject to high winds and lightning storms. Furthermore, many of the trees are deciduous.

Ironically, any landscaping will block and obstruct the scenic area and view. Yet the deciduous landscaping will necessarily be intermittent, so adjacent residents will inevitably still be subjected to adverse visual impact. Nadine Lentz and Robert Rohe are right to be concerned about the effect on their quality of life and property values.

While Petitioners produced Mr. Straitman to appraise that there would be no adverse impact, we submit that his review of the facility in the West Friendship suburbanized area was not persuasive. We gave reasons in our discussion of his evidence.

Accordingly, given this unique location, it is submitted that Petitioners have failed to satisfy their requirements with respect to scenic and visual impacts. The proposed facility at this location, moreover, will not be in harmony with the zone and master plan.

III. Statutory Construction: Environmental Impacts; Water Resources Scope of Special Exception Review; May Not be Avoided or Deferred; Petitioners' Failure to Meet Criteria; Additional Concerns; Wildlife and Lake Effect

"To conceal oneself from law is like trying to hide in birdcage."
Charlie Chan's Greatest Case (1933)

We have explained that BCZR Sec. 502.1.A covers the environment under the rubric of health, safety, or general welfare; Sec. 502.1.H targets impermeable surfaces and so stormwater management; and Sec. 502.1.I specifically targets the environment and natural resources in R.C. 2 to R.C. 8 Zones. We have also emphasized that Bill 37-17's statement of purpose explicitly provides for a balance to protect the environment. In addition to stormwater runoff and management generally, there is also the documented concern about toxic pollution upon disposal of used panels.

Ms. Pieper's review of the TEA and the site-specific Conservation Benefits Assessment of the property reinforce the particular concerns about environmental impacts. These must not be sidestepped.

Yet Petitioners argue, and the CBA panel agreed in Matthews, that the specifics of environmental review can be left to the development process. As a result, as here, Petitioners provide a description of the general location of the stream system, wetlands, and floodplains. They say they will comply with the environmental laws at the later development stage, but they do not produce proof of even their preliminary plans. In this way, they escape public scrutiny beyond the confines of the cooperative bureaucracy.

Their escape attempt does not end with circumvention of the aforesaid special exception criteria. Despite recognizing their need to comply with solar facility law area and other specific standards, with which they can comply, they want to avoid the specific environmental plan per County Code Sec. 33-3-108 required by BCZR Sec. 4F-104.A.9. App. 16. This Code section entitled "Plan Information" requires an environmental plan with 18 enumerated items of information. , P.C. Exh. 13. Petitioners repeat their mantra that this can await the development process.

The CBA panel in Matthews excused Petitioners from compliance with plan requirements at this stage. The CBA's reasoning does not hold up. The CBA noted that

BCZR Sec. 4F-104.A.9 refers to Code Sec. 33-3-108, but not to subsection 33-3-108(c) specifically, as if Sec. 33-3-108 did not include each of the subsections. The CBA's other point was that subsection (a) refers to the Department of Environmental Protection and Sustainability (DEPS) as involved in the review process, as if this excludes the CBA. This fails to recognize that both legally and practically, as we have shown, zoning and development issues blend and complement each other in the land use process mix. To illustrate, all of the departments participate in the Zoning Advisory Committee and make comments and recommendations. Otherwise stated, the Department's involvement in the plan review and the development process does not exclude consideration in the zoning process, especially where there is such a specific additional zoning requirement.

From the point of view of statutory construction, there comes into play the settled canon quoted in Evans v. State 420 Md. 391, 400-01 (2011),

> To assist in resolving the present issue, we rely on one oft-cited statutory standard of review, which we articulated in *Ray v. State,* 410 Md. 384, 978 A.2d 736 (2009):
>
> 'In statutory interpretation, our primary goal is always to discern the legislative purpose, the ends to be accomplished, or the evils to be remedied by a particular provision, be it statutory, constitutional or part of the Rules. **We begin our analysis by first looking to the normal, plain meaning of the language of the statute, reading the statute as a whole to ensure that no word, clause, sentence or phrase is rendered surplusage, superfluous, meaningless or nugatory. If the language of the statute is clear and unambiguous, we need not look beyond the statute's provisions and our analysis ends.** Occasionally we see fit to examine extrinsic sources of legislative intent merely as a check of our reading of a statute's plain language. In such instances, we may find useful the context of a statute, the overall statutory scheme, and archival legislative history of relevant enactments.
>
> If, however, the language is subject to more than one interpretation, it is ambiguous, and we endeavor to resolve that ambiguity by looking to the statute's legislative history, case law, statutory purpose, as well as the structure of the statute. **When the statute is part of a larger statutory scheme, it is axiomatic that the language of a provision is not interpreted in isolation; rather, we analyze the statutory scheme as a whole considering the purpose, aim, or policy of the enacting body, and attempt to harmonize provisions dealing with the same subject so that each may be given effect."** Emphasis supplied.

This familiar canon comes into play here in two ways.

To begin, Code Sec. 33-3-108 applies to all development, uses permitted by right or special exception. Petitioners must comply with this section anyway. By adding it in plain language to the solar facility law, the County Council centered it in the zoning process and special exception review. To rule otherwise renders this addition surplusage, superfluous, meaningless, and nugatory. This is against the law.

Furthermore, the legislative statement of purpose in BCZR Sec. 4F-101 highlights the importance of evaluating environmental issues in the zoning process, and not abdicating based on the excuse that the bureaucracy will take care of it later.

Petitioners produced Eric Hadaway to outline the location of the stream, wetlands, and floodplain area on the property. But there was no specific delineation or study. They did not submit any plan even partially addressing the Code Sec. 33-3-108 requirements. Rather, their position is that they will do their environmental review in the development process. David Martin said there was preliminary contacts with DEPS staff, but there was no documentation. The DEPS Zoning Advisory Committee comment simply said Petitioners would have to comply with the environmental requirements in Article 33, Titles 3 and 6 of the Code.

For all of the reasons stated above, we submit that special exception review requires more than Petitioners have provided and more than DEPS has so far required. This is another issue of statutory construction.

* * *

There are also reasonable concerns about the impact on wildlife. It is undisputed that the area is filled with a myriad of wildlife, including eagles, a variety of birds, and other animals. The elevation of the open plateau presents a particular issue as to the so-called Lake Effect, the problem of birds mistaking the panels for a lake and flying into them. Lynn Jones presentation of evidence and literature should have been admitted and should be considered. United States Supreme Court has often cited literature. See Brown v. Board of Education. 347 U.S. 483, 489, n. 4, 494, n. 11. (1954). The Court of Special Appeals recently cited several articles describing the health impacts of hookah smoke while affirming this CBA in Baddock v. Baltimore County 239 Md. App. 467, 479

IV. Statutory Construction: Scope of Special Exception Review; Independent of Area and Other Standards; Compliance with Such Standards Does Not Translate to Special Exception Approval

As noted, the CBA in Matthews basically ruled that satisfaction of listed area and other boilerplate standard are sufficient to entitle special exception approval. BCZR Sec. 4F-102, 4F-104. Petitioners ask their consultants a simplistic series of leading questions to get complaisant affirmative answers, as if this wins the case. This is a false narrative.

In every zone, and for every use, there are area and other specific standards. These apply to uses permitted by right and special exception. Almost every use permitted by right in the R.C. 2 Zone is subject to additional standards. BCZR Sec. 1A01.2.B.6-10, 12, 14. The Business and Manufacturing Zones show the same pattern. BCZR Sec. 230.2; 253.1, 256.1.There are also conditions for many targeted uses: i.e. Farm and Agricultural Operations, BCZR Sec. 404; Fuel Service Stations, Sec. 405; Junkyards, Sec. 408; Offstreet Parking, Sec. 409; Trucking Facilities, Sec. 410; Sanitary Landfills, Sec. 412; Wireless Telecommunications Facilities, Sec. 426; and Pawnshops, BCZR Sec. 436.

The main point here is that for special exceptions, even if such area and other criteria are met, this does not displace or alleviate a petitioner's independent burden to satisfy the BCZR Sec. 502.1 special exception criteria and elements. Otherwise, there would be no difference between special exceptions and uses by right.

In this pattern, Bill 37-17 adds height, area, and other standards. BCZR Sec. 4F-104. If satisfied, it just means no variances are necessary. This is reflected in People's Counsel v. Webster 65 Md. App. 694 (1986); People's Counsel v. Mangione 85 Md. App. 738 (1991), convalescent home, residential zone; People's Counsel v. Country Ridge Shopping Center 144 Md. App. 580 (2002), pawnshop, business zone; Lucas v. People's Counsel 147 Md. App. 209 (2002), helicopter landing area, agricultural zone, People's Counsel v. Loyola College 406 Md. 54 (2008), retreat center, agricultural zone.

Where petitioners propose to deviate from these standards, they must request both special exception and variance(s). Umerley v. People's Counsel 108 Md. App. 497, cert.

denied 342 Md. 584 (1996), trucking facility in M.L Zone; Riffin v. People's Counsel 137 Md. App. 90, cert. denied 363 Md. 660 (2001), commercial recreation in M.L. Zone.

Otherwise stated, Petitioners here must satisfy each BCZR Sec. 502.1 special exception standard independent of whether or not they satisfy the height, area, and other standards. For example, as to scenic roads and viewsheds, Bill 37-17 requires screening in accordance with the Baltimore County Landscape Manual. BCZR 4F-104.A.6. This is a minimum standard. Even if the Manual is satisfied, there still must be satisfaction of the BCZR Sec. 502.1 criteria concerning visual impact. Depending on location and situation, the landscaping may not be sufficient to prevent particular adverse impacts.

V. Depth Perspective: What's It All About?

"In the end you will understand." Jeremiah 23:20

We are trained to compartmentalize legal issues. But they can also be viewed together integrally and cumulatively. Metaphorically, it is as if we are in an art museum, such as the Tate on the banks of the Thames, viewing a J.M.W. Turner or a Monet painting. As we step away, we have perspective and get closer to the heart of the matter.

In the special exception context, this perspective mirrors the essential requisite that the use harmonize with the comprehensive zone. This involves a balanced, collective, contextual approach. Petitioners' site selection is based narrowly on economic and technological advantage, without attention to prime and productive soils, scenic roads, visual impact, and the environment. They place business interests first, and then try to fit the law in as an afterthought. When contested, they claim these issues are irrelevant or should be deferred. They retain professionals to say whatever they can to get a result.

The particular adverse impacts here are especially severe as to agriculture and prime soils; unproven as to the environment; and particularly severe as to visual impact. When we look at the issues either separately, collectively, or cumulatively, we are obligated to conclude both that Petitioners have failed to meet their burden of proof, separately and collectively, and, furthermore, that the particular adverse impacts and disharmony with the comprehensive zone are such as to warrant denial of the petition.

Peter Max Zimmerman

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY this 22nd day of February, 2019, a copy of this People's Counsel for Baltimore County's Post-Hearing Memorandum was mailed, first class mail and e-mail, to H. Barnes Mowell, Esq., 16925 York Road, Monkton, Maryland 21111, attorney for Protestants, and Adam Rosenblatt, Esq., and Patricia Malone, Esq, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorneys for Petitioner(s).

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

Sec. 523. - The master plan and the zoning maps.

(a) *Definition and implementation of the master plan.* The master plan shall be a composite of mapped and written proposals setting forth comprehensive objectives, policies and standards to serve as a guide for the development of the county. Upon receipt of the master plan from the office of planning and zoning, the county council shall accept or modify and then adopt it by resolution.

(b) *Definition and implementation of the zoning maps.* The zoning maps shall show the boundaries of the proposed districts, divisions and zones into which the county is to be divided consistent with the master plan. Upon receipt of the zoning map from the office of planning and zoning, the county council shall accept or modify and then adopt it by legislative act.

(Bill No. 83, 1978, § 3) (Approved by voters Nov. 7, 1978; effective Dec. 8, 1978)

Sec. 524. - Reorganization of office of planning and zoning.

Notwithstanding any other provisions of this Charter, the county council shall have the power by legislative act to reorganize the office of planning and zoning, to define the duties of the director of said office, to establish the powers, duties and compensation of the planning board, and to establish the duties and responsibilities of the zoning commissioner and deputy zoning commissioners, so that planning and zoning functions shall be conducted in the best interests of the county and its future development and growth.

(Bill No. 83, 1978, § 1; approved by voters Nov. 7, 1978; effective Dec. 8, 1978; Bill No. 128, 1990, § 1; approved by voters Nov. 6, 1990; effective Dec. 7, 1990)

Sec. 524.1. - People's counsel.

(a) The county executive shall appoint a people's counsel who shall represent the interests of the public in general in zoning matters as hereinafter set forth, subject, however, to confirmation by the county council, and such person so appointed shall continue to serve as people's counsel until such time as he or she resigns or has been removed pursuant to the provisions herein contained:

APP. 1

(1) *Qualifications:* The people's counsel shall be a resident of Baltimore County, a member in good standing of the Maryland Bar, and actively engaged in the general practice of law for at least five (5) years prior to his appointment.

(2) *Removal:* The people's counsel may be removed at any time on the recommendation of the county executive and with the affirmative vote of not less than a majority plus one of the total number of county council members established by this Charter.

(Bill No. 90, 1978, § 1) (Approved by voters Nov. 7, 1978; effective Dec. 8, 1978)

(3) *Powers and duties:* The people's counsel shall have the following powers and duties:

A. He shall appear as a party before the zoning commissioner of Baltimore County, his deputy, the county board of appeals, the planning board, and the courts on behalf of the interests of the public in general, to defend any duly enacted master plan and/or comprehensive zoning maps as adopted by the county council; and in any matter or proceeding now pending or hereafter brought involving zoning reclassification and/or variance from or special exception under the Baltimore County Zoning Regulations, as now or hereafter in force and effect, in which he may deem the public interest to be involved. In defense of the zoning maps or master plan, he may appear as a party in interest before all state and federal agencies, boards, and courts on matters involving the preservation of the quality of the air, land, and water resources of Baltimore County, and/or may initiate such proceedings in the public interest. He shall have in such appearance, all the rights of counsel for a party in interest, including but not limited to the right to present his case, to cross examine, to object, to be heard, and to file and prosecute an appeal in his capacity as people's counsel from any order or act of the zoning commissioner of Baltimore County or his deputy, or of the county board of appeals to the courts as an aggrieved party pursuant to the provisions of Section 604 of this Charter to promote and protect the health, safety and general welfare of the community. The people's counsel may also prosecute

an application before any state or federal court for injunctive and other relief incidental thereto, to enjoin violation of any Baltimore County zoning maps or master plan or as authorized by resolution by the county council.

(Bill No. 90, 1978, § 1) (Approved by voters Nov. 7, 1978; effective Dec. 8, 1978)

B. He shall make such investigations as he may deem necessary to the intelligent performance of his duties imposed by subparagraph A. of this Section.

C. He shall have full access to the records of all county agencies, shall be entitled to call upon the assistance of county employees, and shall have the benefit of all other facilities or information of the county in carrying out his duties.

(4) *Employment of experts:* The people's counsel may hire from time to time, as needed, in connection with specific proceedings before the above named bodies, experts in the fields of planning, zoning, traffic, engineering, ecology and architecture, to the extent that county personnel cannot be utilized, and to expend such sums for compensation and/or expenses of these experts as shall be provided in the annual budget.

(5) *Salary and expenses:* He shall receive an annual salary and such sums as may be needed to carry out the powers and duties set forth herein as provided in the annual budget.

(Bill No. 104, 1960; Bill No. 61, 1974, § 1; Bill No. 90, 1978, § 1; approved by voters Nov. 7, 1978; effective Dec. 8, 1978; Bill No. 131, 1990, § 1; approved by voters Nov. 6, 1990, effective Dec. 7, 1990)

Annotation— The people's counsel has the right to appeal zoning decisions. People's Counsel for Baltimore County v. Williams, 45 Md. App. 617, 415 A.2d 585 (1974).

Editor's note— The publisher corrected a former reference to "matter" to read "matters" in subsection (a). Bill 61-74, which originally enacted this language, used the word "matters". The 1976 annual cumulative supplement to the 1968 Code used the word "matters" but it appears to have been changed to "matter" inadvertently on publication of the 1978 Code.

APP. 2

SECTION 1A01 - R.C.2 (Agricultural) Zone

§ 1A01.1. - General provisions.

A. Legislative statement of findings.

1. Declaration of findings. It is found:

a. That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;

b. That the agricultural industry is an integral part of the Baltimore economy and that a continued conversion of agricultural land will continue to undermine this basic industry;

c. That scattered development is occurring in a sporadic fashion in areas of Baltimore County containing productive agricultural land;

d. That continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area;

e. That heretofore Baltimore County has been unable to effectively stem the tide of new residential subdivisions in productive agricultural areas of Baltimore County;

f. That Baltimore County has certain wetlands along Chesapeake Bay and its tributaries which serve as breeding grounds and nursery areas for the bay's biotic life; and

g. That Baltimore County possesses numerous areas which are highly suitable for urban development, including residential subdivisions which are not located in areas of productive agricultural land.

B. Purposes. The R.C.2 zoning classification is established pursuant to the legislative findings above in order to foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses.

§ 1A01.2. - Use regulations.

A.

APP. 3

Preferred use permitted as of right. Agricultural operations, when conducted in accordance with good and reasonable husbandry practices, shall be afforded preferential treatment over and above all other permitted uses in R.C.2 Zones.

B. Uses permitted as of right. The following uses only are permitted as of right in all R.C.2 Zones:

[Bill No. 178-1979]

1. Dwellings, one-family detached.

[Bill No. 178-1979]

2. Farms and limited acreage wholesale flower farms (Section 404).

[Bill Nos. 178-1979; 51-1993]

3. Open space, common.

[Bill No. 178-1979]

4. Public schools.

[Bill Nos. 63-1980; 47-1982; 47-1985]

5. Streets and ways.

[Bill No. 178-1979]

6. Telephone, telegraph, electrical power or other lines or cables, provided that any such line or cable is underground; underground gas, water or sewer mains or storm drains; or other underground conduits, except interstate or international pipelines.

[Bill No. 178-1979]

7. Trailers or mobile homes, provided that any trailer or mobile home allowed under this provision must be used or stored in accordance with the provisions of Subsection B, C, E or F of Section 415.1 and Section 415.2.A.1 or 415.3.C.1, as applicable.

[Bill Nos. 178-1979; 27-2015]

8. Antennas used by CATV systems operated by companies franchised under Article 25 of the Baltimore County Code, if situated on property owned by the county, state or federal government or by a governmental agency.

[Bill Nos. 220-1981; 137-2004]

9. Accessory uses or structures, including, but not limited to, the following:

a. Excavations, uncontrolled.

[Bill No. 178-1979]

b. Farmer's roadside stand and produce stand, subject to the provisions of Section 404.4.

[Bill Nos. 178-1979; 41-1992]

c. Home occupations (see Section 101).

[Bill Nos. 124-1978; 178-1979]

d. Offices or studios of physicians, dentists, lawyers, architects, engineers, artists, musicians or other professional persons, provided that any such office or studio is established within the same building as that serving as the professional person's primary residence at the time of application; does not occupy more than 25 percent of the total floor area of that residence; and does not involve the employment of more than one nonresident employee.

[Bill Nos. 78-1979; 105-1982; 65-1999]

e. Parking space, including residential-garage space and space for recreational vehicle (Section 415A).

[Bill No. 178-1979]

f. Piers, wharves, docks and bulkheads, subject to the provisions of Section 417.

[Bill No. 178-1979]

g. Radio operator antennas, subject to Section 426A.

[Bill Nos. 178-1979; 30-1998]

h. Swimming pools, tennis courts, garages, utility sheds, satellite receiving dishes (subject to Section 429) or other accessory structures or uses (subject to the height and area provisions for buildings as set forth in Section 400).

[Bill No. 178-1979; Bill No. 71-1987]

i. Tenant houses, including mobile homes used as tenant houses.

[Bill Nos. 178-1979; 27-2015]

j. Rubble landfills, provided that the actual fill area does not exceed three percent of the total contiguous acreage of the property in the same ownership and subject to the provisions of Section 412.7 only.

[Bill No. 97-1987]

k. Signs, subject to Section 450.

[Bill No. 89-1997]

10. Commercial film production, subject to Section 435.

[Bill No. 57-1990]

11. Transit facilities.

[Bill No. 91-1990]

12. Equestrian centers, provided that any such equestrian center has access to two roads, one of which is a road having, within two miles from the equestrian center, an interchange with an interstate expressway; contains no permanent grandstand; and contains no lights other than those consistent with farm use. Temporary structures, such as removable tents, viewing stands and seating, are permitted, provided that they are removed within a reasonable time following the event or events which they serve.

[Bill No. 24-2002]

13. Farmstead creamery, subject to the provisions of Section 404.13.

[Bill No. 34-2009]

14. Domestic animal sanctuary, if located on or within property that is greater than 7.5 acres in size.

[Bill No. 20-2010]

C. Uses permitted by special exception. [2] The following uses, only, may be permitted by special exception in any R.C.2 Zone, provided that in each case the hearing authority empowered to hear the petition finds that the use would not be

APP. 4

detrimental to the primary agricultural uses in its vicinity; and, in the case of any use permitted under Item 29, further provided that the hearing authority finds that the use would support the primary agricultural use in its vicinity and would not itself be situated on land more appropriately used for primary agricultural uses:

[Bill No. 178-1979]

1. Airports.

[Bill No. 178-1979]

2. Animal boarding places (regardless of class), commercial kennels, private kennels, veterinarians' offices or veterinariums (see Section 421).

[Bill Nos. 178-1979; 87-2001]

3. Antique shops (see Section 402B).

[Bill No. 178-1979]

4. Camps, including day camps.

[Bill No. 178-1979]

5. Community care centers provided that no residential community care center, i.e., a center which serves as the residence of the persons for whom care is provided, shall provide care for more than 15 persons per site, and no day community care center shall provide care for more than 15 persons per acre nor more than 75 persons per site; however, if the site is in excess of two net acres and is located outside the urban rural demarcation line, the hearing authority shall determine the maximum number of persons permitted in a day community care center based on the total acreage of the site and the testimony and evidence presented.

[Bill Nos. 178-1979; 157-1986; 19-2014]

6. Churches or other buildings for religious worship.

[Bill No. 178-1979]

7. Community building owned by a nonprofit civic or improvement association and used by its members and guests for recreational, social, educational, or cultural activities.

[Bill No. 26-2015]

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8. Excavations, controlled.

[Bill No. 178-1979]

9. Farm market, subject to the provisions of Section 404.4.

[Bill Nos. 178-1979; 41-1992]

10. Fishing and shellfishing facilities, Class I and II.

[Bill No. 178-1979]

11. Golf courses or country clubs.

[Bill No. 178-1979]

12. Home occupations of disabled persons, where the use is established in a structure originally constructed as a dwelling or as accessory to a dwelling or where the use is established in a structure that is situated on the same lot as a dwelling and which the Zoning Commissioner finds to be compatible with its surrounding neighborhood, provided that:

   a. Only three persons, including the disabled person and the members of his immediate family who are residents of the dwelling, are employed in the use on the premises; and

   b. In any case the use is conducted by a disabled person whose domicile is the dwelling to which the use is accessory and whom the hearing authority finds is so severely disabled as to be unable to engage in his occupation away from the premises of his home.

   Any provision of Section 502.2 to the contrary notwithstanding, any special exception granted pursuant to this item shall expire upon the first to occur of the following:

   (1) Five years after the issuance of the permit;

   (2) The death of a disabled person;

   (3) The termination of the disability; or

   (4) The failure of the disabled person to permanently reside at the premises.

   A new special exception for the use may be granted when the previous special exception expires but only upon the completion of the entire application and hearing process in the same manner as if it were the

initial application for this special exception. It is the purpose of this provision to prevent the use of residential property for business purposes by an occupant other than a disabled person and to ensure that any occupation permitted pursuant to this item will be conducted in a manner appropriate to its surroundings.

[Bill No. 27-1981]

13. Horticultural nurseries, subject to the provisions of Sections 404.1 and 404.2.

[Bill No. 41-1992]

14. Hunting or fishing preserves.

[Bill No. 178-1979]

15. Landscape service operations, subject to the provisions of Sections 404.1 and 404.3.

[Bill No. 41-1992]

16. Offices for agriculture-related uses.

[Bill Nos. 178-1979; 37-1988]

17. Offices or studios of physicians, dentists, lawyers, architects, engineers, artists, musicians or other professional persons as an accessory use, provided that any such office or studio is established within the same building as that serving as the professional person's primary residence at the time of application; does not occupy more than 25 percent of the total floor area of that residence; and does not involve the employment of more than one nonresident professional associate nor two other nonresident employees.

[Bill Nos. 105-1982; 65-1999]

18. Public utility uses not permitted as of right.

[Bill No. 178-1979]

19. Rail passenger station, subject to Section 434.

[Bill No. 91-1990 (E)]

20. Residential art salons (see Section 402C).

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[Bill No. 178-1979]

21. Standard restaurants or tearooms converted from dwellings (Section 402.2).

[Bill Nos. 178-1979; 110-1993]

22. Riding stables.

[Bill No. 178-1979]

23. Sanitary landfills, or rubble landfills in which the actual fill area exceeds three percent of the total contiguous acreage of the property in the same ownership. However, the fill area of a rubble landfill may not exceed seven percent of the total contiguous acreage, nor may the fill area exceed a depth of 20 feet unless the Zoning Commissioner specifically finds that the landfill should be exempt from the depth limitation (see Section 412).

[Bill Nos. 178-1979; 97-1987]

24. Schools, including schools for agricultural training, private preparatory schools, business or trade schools, conservatories or colleges.

[Bill No. 178-1979]

25. Shooting ranges, including archery, pistol, skeet, trap or small-bore rifle ranges, or turkey shoots.

[Bill No. 178-1979]

26. Sludge disposal facility — landspreading (Section 412A.2.E).

[Bill No. 46-1982]

27. Mobile homes, as provided in Section 415.1.D.

[Bill Nos. 178-1979; 27-2015]

28. Volunteer fire company or ambulance-rescue facilities.

[Bill No. 178-1979]

29. Wireless telecommunications towers, subject to Section 426.

[Bill No. 30-1998]

30. The following "agricultural-support" uses as principal commercial uses:

[Bill Nos. 178-1979; 51-1993]

a. Farm-machinery sales, storage or service; blacksmithing.

[Bill No. 178-1979].

b. Feed or grain mills or driers.

[Bill No. 178-1979]

c. Fertilizer sales or storage.

[Bill No. 178-1979]

d. Sawmills.

[Bill No. 178-1979]

e. Slaughterhouses or manufacture, processing or packing of fruit, vegetables, animal or meat products, or by-products.

[Bill No. 178-1979]

f. Spirits manufacture, including the manufacture of alcohol to be used in gasoline/alcohol mixtures, but excluding the production of these mixtures.

[Bill Nos. 178-1979; 51-1993]

g. Firewood operations.

[Bill No. 151-1992]

h. Winery, including accessory retail and wholesale distribution of wine produced on-premises. Temporary promotional events, such as wine tastings or public gatherings associated with the winery, are permitted, within any limits set by the special exception.

[Bill No. 51-1993]

i. Bottled water plant, if the source of the water is located on the same site as the plant, and provided that the Director of Environmental Protection and Sustainability makes a recommendation that the proposed facility will not adversely affect the quality or capacity of surface water or groundwater.

[Bill Nos. 51-1993; 122-2010]

j.

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Brewery, Class 7 or Class 8, including accessory retail and wholesale distribution of beer produced on the premises. Temporary promotional events, such as beer tasting or public gatherings associated with the brewery, are permitted subject to approval by the Administrative Law Judge or Board of Appeals on appeal.

[Bill No. 64-2015]

§ 1A01.3. - Height and area regulations.

A. Height regulation. No structure hereafter erected in an R.C.2 Zone shall exceed a height of 35 feet, except as otherwise provided under Section 300.

B. Area regulations.

[Bill No. 178-1979]

1. Subdivision lot density. No lot of record lying within an R.C.2 Zone and having a gross area of less than two acres may be subdivided. No such lot having a gross area between two and 100 acres may be subdivided into more than two lots (total), and such a lot having a gross area of more than 100 acres may be subdivided only at the rate of one lot for each 50 acres of gross area. In cases where land in single ownership is crossed by existing or proposed roads, rights-of-way or easements, the portions of land on either side of the road, right-of-way or easement shall not be considered separate parcels for the purpose of calculating the number of lots of record.

[Bill Nos. 199-1990; 125-2005]

2. Lot size. A lot having an area less than one acre may not be created in an R.C.2 Zone.
3. Setback requirements. No principal structure or dwelling (whether or not it is a principal structure) in an R.C.2 Zone may be situated within 75 feet of the center line of any street or within 35 feet of any lot line other than a street line.
4. Principal dwellings per lot. No more than one principal dwelling is permitted on any lot in an R.C.2 Zone.

§ 1A01.4. - Maryland Agricultural Land Preservation Program.

[Bill Nos. 178-1979; 137-2004]

The use or development of land in an agricultural district established in accordance with Title 2, Subtitle 5 of the Agriculture Article of the Annotated Code of Maryland shall be governed by agricultural land preservation provisions enacted by the County Council pursuant to § 2-513 of the Agriculture Article in the case of any conflict between those provisions and these regulations.

§ 1A01.5. - Inconveniences arising from agricultural operations.

[Bill No. 34-2009; 62-2017 [2]]

Any dwelling, business or use in or near an R.C.2 Zone may be subject to inconveniences or discomforts arising from agricultural operations, including but not limited to noise, odors, fumes, dust, the operations of machinery of any kind during any 24-hour period (including aircraft), the storage and disposal of manure and the application, by spraying or otherwise, of chemical fertilizers, soil amendments, herbicides and pesticides. The County shall not consider an agricultural operation to be a public or private nuisance if the operation complies with these regulations and all federal, state or County health or environmental requirements; except that during the period between 10:00 p.m. and sunrise as defined by the National Weather Service for sunrise on the particular day in the Baltimore area, an agricultural operation may not fire or otherwise discharge an air cannon or similar device that releases a loud shotgun-like blast within 500 feet of an adjacent residential dwelling.

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ARTICLE 4F - SOLAR FACILITIES

[Bill No. 37-2017 [1]]

§ 4F-101. - Purpose and definitions.

A. Purpose. Solar energy is recognized as an abundant, renewable, and environmentally sustainable source of electricity generation that will lead to greater local grid resiliency and security, and produce clean, renewable energy and reduce air and water pollution caused by the burning of traditional fossil fuels. The purpose and intent of this article is to permit solar facilities in parts of the rural and commercial areas of the County by special exception, and to balance the benefits of solar energy production with its potential impact upon the County's land use policies by ensuring sufficient safeguards are in place to protect the County's communities and its agricultural land, forests, waterways and other natural resources.

B. Definitions. As used in this article, the following terms have the meanings indicated:

COMMERCIAL USE — The transfer to the electrical power grid of energy produced by a solar facility for sale by energy suppliers to consumers.

SOLAR FACILITY — A facility that includes a series of one or more solar collector panels or solar energy systems that are placed in an area on a tract of land for the purpose of generating photovoltaic power for commercial use. The term includes a solar power plant or solar photovoltaic farm.

§ 4F-102. - Location of solar facilities.

A. Subject to Paragraph B, a solar facility is permitted only by special exception in the R.C. 2, R.C. 3, R.C. 4, R.C. 5, R.C. 6, R.C. 7, R.C. 8, B.L., B.M., M.R., M.L.R., and M.H. Zones of the County.

B. The allocation of land for solar facilities in the County is limited to the following:

1. The maximum area permitted for a single solar facility is the amount of acreage that produces no more than two megawatts alternating current (AC) of electricity.

2. No more than ten solar facilities may be located in a councilmanic district.
3. The Director of Permits, Approvals and Inspections shall maintain a record of all permits issued for a solar facility in the County, including the location and councilmanic district for each such facility, and shall keep a current accounting of the number of facilities in each councilmanic district under this paragraph.
4. Upon reaching the threshold of ten solar facilities in a councilmanic district, no additional permits shall be issued for a solar facility in that district unless an existing facility previously approved under this article has been removed pursuant to Section 4F-107.

§ 4F-103. - Exception.

This article does not apply to the following solar facility installations:

A. A ground-mounted solar facility that is accessory to a principal residential or agricultural use (subject to Sections 400.1 and 400.2 of these regulations applicable to accessory buildings), or accessory to a principal commercial, industrial, or institutional use;

B. A rooftop solar facility;

C. A solar facility on federal, state or local government-owned or leased land that produces energy for government use; or

D. A solar facility located on the same property or tract as a farm that uses at least 66 percent of the energy generated by the facility for agricultural uses on the farm.

§ 4F-104. - Requirements.

A. A solar facility located in an R.C. Zone is subject to the following requirements:

1. The land on which a solar facility is proposed may not be encumbered by an agricultural preservation easement, an environmental preservation easement, or a rural legacy easement.
2. The land on which a solar facility is proposed may not be located in a Baltimore County historic district or on a property that is listed on the Baltimore County Final Landmarks List.
3.

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The portion of land on which a solar facility is proposed may not be in a forest conservation easement, or be in a designated conservancy area in an R.C. 4 or R.C. 6 Zone.

4. Aboveground components of the solar facility, including solar collector panels, inverters, and similar equipment, must be set back a minimum of 50 feet from the tract boundary. This setback does not apply to the installation of the associated landscaping, security fencing, wiring, or power lines.
5. A structure may not exceed 20 feet in height.
6. A landscaping buffer shall be provided around the perimeter of any portion of a solar facility that is visable from an adjacent residentially used property or a public street. Screening of state and local scenic routes and scenic views is required in accordance with the Baltimore County Landscape Manual.
7. Security fencing shall be provided between the landscaping buffer and the solar facility.
8. A solar collector panel or combination of solar collector panels shall be designed and located in an arrangement that minimizes glare or reflection onto adjacent properties and adjacent roadways, and does not interfere with traffic or create a safety hazard.
9. A petitioner shall comply with the plan requirements of § 33-3-108 of the County Code.
10. In granting a special exception, the Administrative Law Judge, or Board of Appeals on appeal, may impose conditions or restrictions on the solar facility use as necessary to protect the environment and scenic views, and to lessen the impact of the facility on the health, safety, and general welfare of surrounding residential properties and communities, taking into account such factors as the topography of adjacent land, the presence of natural forest buffers, and proximity of streams and wetlands.

B. The requirements of Subparagraphs A.6, A.7, A.8 and A.10 shall apply to a solar facility located in a Business or Manufacturing Zone.

§ 4F-105. - Required security.

A.

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An applicant for a building permit for a solar facility shall provide a security bond or equivalent financial security in the form and amount determined by the County Administrative Officer.

B. The Code Official may use the bond to procure the repair of any unsafe or hazardous conditions under Section 4F-106 or removal of a solar facility under Section 4F-107, in accordance with § 3-6-402 of the County Code.

§ 4F-106. - Maintenance.

A. All parties having a lease or ownership interest in a solar facility are responsible for the maintenance of the facility.

B. Maintenance shall include painting, structural repairs, landscape buffers and vegetation under and around solar panel structures, and integrity of security measures. Access to the facility shall be maintained in a manner acceptable to the Fire Department. The owner, operator, or lessee are responsible for the cost of maintaining the facility and any access roads.

C. Appropriate vegetation is permitted under and around the solar collector panels, and the tract may be used for accessory agricultural purposes, including grazing of livestock, apiculture, and similar uses.

D. The provisions on this section shall be enforced in accordance with Article 3, Title 6 of the County Code.

§ 4F-107. - Abandonment; removal.

A. A solar facility that has reached the end of its useful life or has been abandoned shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the County by certified mail of the proposed date of discontinued operations and plans for removal.

B. Removal shall consist of the:

1. Physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site;
2. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations; and
3. Stabilization or revegetation of the site as necessary to minimize erosion.

C. If the owner or operator fails to remove the facility within 150 days of abandonment, the County retains the right to enter and remove the facility. As a condition of special exception approval, the petitioner and landowner agree to allow entry to remove an abandoned facility.

D. The Code Official may issue a citation to the owner or operator for removal of a solar facility if:

1. The Code Official determines that the solar facility has not been in actual and continuous use for 12 consecutive months;
2. The owner or operator failed to correct an unsafe or hazardous condition or failed to maintain the solar facility under Section 4F-106 within the time prescribed in a correction notice issued by the Code Official; or
3. The owner or operator has failed to remove the solar facility in accordance with Paragraph C.

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SECTION 502 - Special Exceptions

[BCZR 1955]

(See Section 270, Schedule of Special Exceptions.)

NOTE: Certain types of uses are required to secure a permit to allow them to be placed in one or more zones in which their uncontrolled occurrence might cause unsatisfactory results of one kind or another. A few uses, such as dumps and junkyards, are inherently so objectionable as to make extra regulations and controls advisable even in the M.H. Zone, to which they are restricted. Others, like a cemetery, do not fit into any of the zone categories, that is, residential, business and industrial, and therefore must be located with discrimination in relation to their surroundings. All the items listed are proper uses of land, but have certain aspects which call for special consideration of each proposal. Because under certain conditions they could be detrimental to the health, safety or general welfare of the public, the uses listed as special exceptions are permitted only if granted by the Zoning Commissioner, and subject to an appeal to the County Board of Appeals.

In granting any special exception, the Zoning Commissioner and the County Board of Appeals, upon appeal, shall be governed by the following principles and conditions.

§ 502.1. - Conditions determining granting of special exception.

Before any special exception may be granted, it must appear that the use for which the special exception is requested will not:

A. Be detrimental to the health, safety or general welfare of the locality involved;

B. Tend to create congestion in roads, streets or alleys therein;

C. Create a potential hazard from fire, panic or other danger;

D. Tend to overcrowd land and cause undue concentration of population;

E. Interfere with adequate provisions for schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements;

F. Interfere with adequate light and air;

[Bill No. 45-1982]

G. Be inconsistent with the purposes of the property's zoning classification nor in any other way inconsistent with the spirit and intent of these Zoning Regulations;

[Bill No. 45-1982]

H. Be inconsistent with the impermeable surface and vegetative retention provisions of these Zoning Regulations; nor

[Bill No. 45-1982]

I. Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5 or R.C.7 Zone, and for consideration of a solar facility use under Article 4E, the inclusion of the R.C. 3, R.C. 6, and R.C. 8 Zones.

[Bill Nos. 74-2000; 37-2017]

§ 502.2. - Protection of surrounding properties; agreement governing special exception.

In granting any special exception, the Zoning Commissioner or the Board of Appeals, upon appeal, shall impose such conditions, restrictions or regulations as may be deemed necessary or advisable for the protection of surrounding and neighboring properties. The owners, lessees or tenants of the property for which a special exception is granted, if required by the Zoning Commissioner, or Board of Appeals, upon appeal, shall enter into an agreement in writing with said Zoning Commissioner and/or the County Commissioners of Baltimore County, [1] stipulating the conditions, restrictions or regulations governing such special exception, the same to be recorded among the land records of Baltimore County. The cost of such agreement and the cost of recording thereof shall be borne by the party requesting such special exception. When so recorded, said agreement shall govern the exercise of the special exception as granted, as to such property, by any person, firm or corporation, regardless of subsequent sale, lease, assignment or other transfer.

§ 502.3. - Time limit for utilization of special exception; extensions.

[Bill Nos. 42-1962; 85-1967; 68-1968; 172-1993]

A special exception which has not been utilized within a period of two years from the date of the final order granting same, or such longer period not exceeding five years, as may have been specified therein, shall thereafter be void. The Zoning Commissioner or, on appeal, the County Board of Appeals, in connection with the

Court of Appeals Decisions: 1950s, 1960s, Early 1970s

Oursler v. Board of Zoning Appeals 204 Md. 397 (1954) came next, affirming restaurant grant, with conditions. The Court cited Merlands for the applicant's burden, called the use *prima facie* permitted, and sustained the conditional finding of no adverse effects. Erdman v. Board of Zoning Appeals 212 Md. 288 (1957) similarly affirmed a gas station approval. But Dorsey Enterprises v. Shpak 219 Md. 16 (1959), affirmed denial of a junkyard – unsightliness, depreciation of property values ---, focusing on particular facts and the burden of proof. Likewise, Crowther v. Johnson 225 Md. 378 (1961) affirmed a trailer park denial, reviewing adverse impacts and the area, finding sufficient facts to support denial – departure from zoning plan, depreciation of property values.

In the 1960s, the Court scrutinized adverse impacts based on the property and neighborhood geography: Montgomery County v. Mossburg 228 Md. 555 (1962), affirms conditional restaurant grant; Bonhage v. Cruse 233 Md. 10 (1963), reverses convalescent home grant, inadequate access; Deen v. BGE 240 Md. 377 (1965), affirms transmission line grant; Bd. of Co. Comm'rs v. Luria 249 Md. 1 (1968), affirms gas station denial, failure to prove zoning plan harmony; Brouillett v. Eudowood Shopping Plaza 249 Md. 606 (1968), affirms self-service carwash denial, failure to prove conformity with zoning plan, absence of adverse impacts; Neumann v. Mayor & City Council 251 Md. 92 (1968), affirms apartment building medical office grant; Eger v. Stone 253 Md. 533 (1969), affirms offstreet parking denial, traffic congestion; Tauber v. County Bd. of Appeals 257 Md. 202 (1970), affirms offstreet parking denial, traffic access; City of Takoma Park v. County Bd. of Appeals 259 Md. 619 (1970), affirms home occupation (slipcovers, reupholstering); Gerachis v. Montgomery Co. Bd. of Appeals 261 Md. 153 (1971), affirms medical clinic addition denial, traffic congestion, property values, incompatibility; Cason v. Bd. of Co. Comm'rs 261 Md. 699 (1971), affirms conditional sand and gravel pit approval; Prince George's Co. v. Meininger 264 Md. 148 (1972), affirms gas station denial, traffic, no need; Skipjack Cove Marina v. Bd. of Co. Comm'rs 264 Md. 381 (1972), affirms conditional marina/motel approval; Sembly v. County Bd. Of Appeals 269 Md. 177 (1973), affirms community building grant.

[2] This Court's decision in *Rosenblatt v. Exxon* makes it clear that, when materials are left on real property at the conclusion of the defendant's lawful possession of the property, there is no cause of action in trespass if the materials entered the land before or during the defendant's lawful possession. The Circuit Court correctly applied this principle when it granted the defendants' motion for summary judgment on the trespass count.

JUDGMENT OF THE COURT OF SPECIAL APPEALS ON THE TRESPASS COUNT REVERSED. JUDGMENT OF THE COURT OF SPECIAL APPEALS OTHERWISE AFFIRMED. CASE REMANDED TO THE COURT OF SPECIAL APPEALS WITH DIRECTIONS TO AFFIRM THE JUDGMENT OF THE CIRCUIT COURT FOR MONTGOMERY COUNTY. COSTS IN THIS COURT AND IN THE COURT OF SPECIAL APPEALS TO BE PAID BY THE RESPONDENT ARE ACQUISITIONS, LLC.

APP. 14

929 A.2d 899

PEOPLE'S COUNSEL FOR BALTIMORE COUNTY, et al.

v.

Dorothy SURINA, et al.

No. 111 Sept. Term, 2006.

Court of Appeals of Maryland.

Aug. 23, 2007.

Background: Neighbors filed a petition for a special hearing on proposed development that included a stormwater management

Court. The contested issue in this Court was whether the chief executive officer could be held personally liable for the actions of the corporation. There was no issue concerning the scope or nature of an action of trespass *quare clausum fregit*. For a discussion of the differences between trespass *quare clausum fregit* and ejectment, *see* I John Prentiss Poe, *Pleading and Practice in Courts of Common Law*, §§ 242–250, 256–275 (3d ed. 1897).

(SWM) facility and a private residential access road. The county zoning commissioner approved the proposed development, and neighbors appealed. The county board of appeals affirmed, and neighbors filed a petition for judicial review. The Circuit Court for Baltimore County, Patrick Cavanaugh, J., reversed in part and affirmed in part, and developer and landowners appealed. The Court of Special Appeals reversed the Circuit Court in part and affirmed in part, and neighbors filed a petition for writ of certiorari.

Holdings: After granting the writ, the Court of Appeals, Harrell, J., held that:

(1) placement of SWM facility, primarily serving land zoned rural-residential, on land zoned rural-agricultural, did not violate county zoning regulations;

(2) placement of access road, primarily serving land zoned rural-residential, on land zoned rural-agricultural, did not violate county zoning regulations; and

(3) land zoned rural-agricultural was not de facto rezoned rural-residential when county approved development plan.

Court of Special Appeals affirmed.

1. Administrative Law and Procedure ⇐683

When any appellate court reviews the final decision of an administrative agency, the court looks through the circuit court's and an intermediate appellate court's decisions, although applying the same standards of review, and evaluates the decision of the agency.

2. Administrative Law and Procedure ⇐760, 791

A reviewing court may not substitute its judgment for an administrative agency's in matters where purely discretionary decisions are involved, particularly when the matter in dispute involves areas within that agency's particular realm of expertise, so long as the agency's determination is based on substantial evidence.

within these areas until such time as intensive development commences.

BCZR § 1A00.2.

A. The R.C. 2 Rural–Agricultural Zone

The R.C. 2 agricultural zone's primary purpose is to "foster conditions favorable to continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses." BCZR § 1A01.1.B.[21] This stated purpose is based on the premise:

a. That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;

b. That agricultural industry is an integral part of the Baltimore County economy and that a continued conversion of agricultural land will continue to undermine this basic industry;

c. That scattered development is occurring in a sporadic fashion in areas of Baltimore County containing productive agricultural land;

d. That continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area;

e. That heretofore Baltimore County has been unable to effectively stem the tide of new residential subdivisions in productive agricultural areas of Baltimore County;

* * * * * *

g. That Baltimore County possesses numerous areas which are highly suitable for urban development, including residential subdivisions which are not located in areas of productive agricultural land.

BCZR § 1A01.1.A.

The primary control device through which the intended purposes of rural-agricultural preservation are carried out are the use regulations contained in BCZR §§ 1A01.2–1A01.4. Although agricultural operations obviously are the preferred use permitted as of right in a R.C. 2 zone, BCZR § 1A01.2.A, other uses are permitted as of right, BCZR § 1A01.2.B, or by special exception. BCZR § 1A01.2.C. Uses permitted as of right, which are pertinent to the present case, include "streets and ways," BCZR § 1 A01.2.B.5, and single-family detached dwellings, BCZR § 1A01.2.B.1.[22] Stormwater management facilities are not mentioned explicitly in the enumeration.

The construction of single-family detached dwellings is subject to height and density regulations found at BCZR § 1A01.3.B. The BCZR provides that no tract within an R.C. 2 zone may be subdivided if it contains a gross area of less than two acres. BCZR § 1 A01.3.B.1. Tracts having a gross area of between two and 100 acres may not be subdivided into more than two lots total. *Id.* For tracts above 100 acres in size, they may be subdivided at a density of no more than one lot per 50 acres. *Id.* In terms of minimum lot size, no lots having a gross area of less than one acre may be created in a R.C. 2 zone. BCZR § 1A01.3.B.2. "No more than one principal dwelling is permitted on any lot in an R.C. 2 Zone." BCZR § 1A01.3.B.4.

21. The R.C. 2 zone was established for the purpose of preserving agricultural land, as opposed to the R.C. 3 mixed-use agricultural classification, which was established in order to "foster conditions favorable to agricultural and residential use of the land while still maintaining the rural character of the area." BCZR § 1A02.1.A.

22. "Uncontrolled excavations," which are

> [t]he digging of soil, sand, gravel, rock, minerals, clay or other earthen material from a land surface for any of the following purposes: When incidental to the operation of a permitted business or manufacturing use located on the same property, but excluding any digging of material for sale, exchange, processing or manufacture; *For grading or other purposes incidental to improvement of the land; and When incidental to the development of land or to grading for public improvements[.]*

BCZR § 101 (emphasis added), likewise are permitted as of right when ancillary to otherwise permitted uses in the zone. BCZR § 1A01.2.B.9.a.

§ 33-3-108. - PLAN INFORMATION.

(a) *Required.* In accordance with § 33-3-104 of this title or Article 32, Title 4 of the Code, a plan approved by the Department is required for all development, forest harvesting operations, surface mining operations, and agricultural operations.

(b) *Details of plan — In general.* The plan shall include an informative, conceptual, and schematic representation of the proposed activity by means of maps, graphs, charts, or other written or drawn documents to enable the Department to make a reasonably informed decision regarding the proposed activity.

(c) *Same — Specific requirements.* The plan shall contain the following information:

(1) A location or vicinity map;

(2) Property lines;

(3) Existing structures or facilities, including buildings, roads, wells, and sewage disposal systems (include 100 feet into adjacent properties where possible);

(4) Existing and proposed contour lines;

(5) Proposed sewage disposal areas;

(6) Field delineated, marked, and surveyed streams, springs, seeps, bodies of water, and wetlands (include 200 feet into adjacent properties where possible);

(7) Field delineated, marked, and surveyed forest buffers;

(8) Department of Public Works approved riverine floodplain limits;

(9) Soils mapped and labeled in accordance with the soil survey of the county;

(10) (i) Slopes greater than 10% for areas adjacent to and within 500 feet of streams, wetlands, or other bodies of water; and

(ii) Slopes greater than 25% for all other areas;

(11) Rare species, threatened species, or endangered species habitat;

(12) Existing vegetation;

(13) Location and type of stormwater management devices and practices;

(14) Building envelopes;

(15) Existing and proposed utility lines and easements;

(16) Historical and archaeological sites;

(17) A note indicating: "There shall be no clearing, grading, construction or disturbance of vegetation in the forest buffer, except as permitted by the Baltimore County Department of Environmental Protection and Sustainability"; and

(18) Supporting documentation for variance requests, including alternatives analyses and conceptual mitigation plans.

(1988 Code, § 14-338) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, § 13, 1-16-2011)

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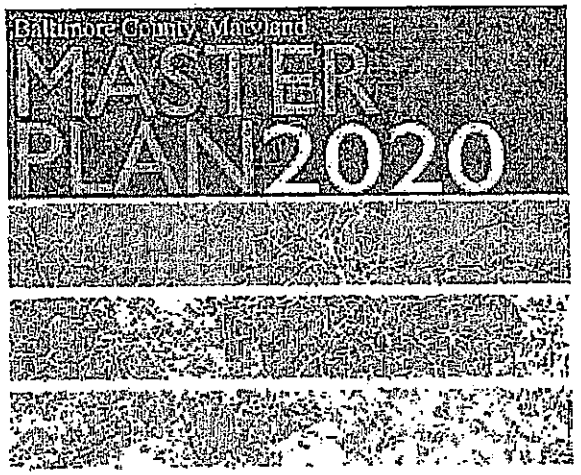

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(3) Participate in multi-jurisdictional efforts to create uniform zoning regulations within the port area.

(4) Continue to participate in the Port Land Use Development Advisory council to help compile a multi- jurisdictional maritime master plan and to promote regional development of the port resource.

Emergency Preparedness/Sea Level Rise

Tropical storm Isabel had a huge effect on the shoreline of Baltimore County, raising the level of the Chesapeake Bay to eight feet above mean high tide, which caused flooding of properties and roadways in much of the eastern Baltimore County waterfront. Resilience to natural hazards, such as storms and storm surges, sea-level rise and shoreline erosion is inextricably linked to the siting and design of development, and to the built and green infrastructure that supports it.

Policy: Public awareness and planning are crucial for safety and minimizing stress during weather events that affect the waterfront.

Actions:

(1) Develop an educational plan for updates on emergency preparedness, including communications, evacuation, traffic, area closures, visitor controls, damage assessment, clean up etc.

(2) Educate the public on the value of shoreline preservation in providing protection against storm damage.

RURAL COMMUNITIES

The rural portion of the County provides high quality drinking water, agricultural products, timber, scenic open space, wildlife habitat, fisheries, recreation, water sports and cultural and historic resources. New development changes the character of the countryside and may have detrimental impacts on these resources. Baltimore County's *Rural Land Management Areas* protect resources and rural economies while permitting limited development. Since 1989, rural resources have been managed by growth policies for each Land Management Area. These areas include: resource preservation, agricultural priority preservation, rural residential areas, and rural commercial centers (Map 9);

Resource Preservation Areas

The Resource Preservation Areas are designated to preserve and protect the historic, cultural, recreational and environmental resources in the rural areas, while allowing a limited amount of residential development. Designated resource preservation areas include Patapsco/Granite, Soldiers Delight, Loch Raven and Prettyboy and Liberty Reservoirs, Gunpowder, and the Chesapeake Bay.

Policy: Preserve valuable cultural, historic, recreational, and environmental resources by limiting development and acquiring available land for public benefit.

Actions:

(1) Recommend that the County Council use the following guidelines in evaluating rezoning requests:

- Carefully evaluate any proposed zoning changes that would permit additional residential density or increased commercial development in the R.C.6, 7, and 8 zones.
- All zoning in the Chesapeake Bay Critical Area (CBCA) should ensure the most appropriate land use to minimize development impacts and preserve quality of life in surrounding communities, and meet existing CBCA designations.
- Comply with the County's commitments in the regional Reservoir Watershed Management Agreement and Action Strategy to

not increase development densities in the reservoir watersheds.

(2) Complete detailed studies to determine the existing and potential residential densities in resource preservation areas.

(3) Consider limiting residential densities to one dwelling unit per 25-50 acres. Consider limiting density calculation to net density for resource zones.

(4) Delineate and coordinate the public use of resource preservation areas for recreational benefits.

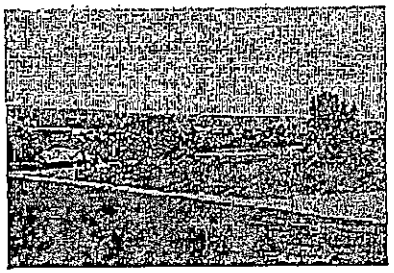
(5) Protect and foster forests and stream systems through conservation easements that prevent the continued fragmentation of these critical resources.

(6) Continue to support State and County programs that encourage sustainable forest management and initiatives to retain forestlands for multiple ecological and economic benefits.

Agricultural Priority Preservation Areas

(Note: Policies and Actions to foster a sustainable agricultural industry may be found in the Economic Vitality section. Preservation of the agricultural land is discussed in the Land Resources section.)

While the County is a national leader for the use of restrictive agricultural zoning and planning for agriculture, there are threats to its continued success. Despite the diligent efforts to maintain and expand the agricultural zoning, incremental development continues to threaten the protection of resources and the viability of the agricultural industry. Zoning and development controls need to be reviewed and strengthened to assure that the goals of the Master Plan and the Baltimore County Zoning Regulations are being achieved.



Policy: Manage land development to limit conflicts with the agricultural industry to safeguard lands preserved through easements.

Actions:

(1) Continue to enforce local policies, ordinances, regulations and procedures that stabilize the agricultural and forest land base.

(2) Review and, if necessary, revise zoning and development standards to promote conditions suitable for production, processing and sale of agricultural products.

(3) Include prime and productive soil standards and a maximum lot size to ensure that large parcels are not split to create large residential lots.

(4) Evaluate increasing the minimum acreage for subdivisions in the RC 2 zone to reduce environmental impacts and development pressure on agricultural resources.

(5) Evaluate regulations to eliminate resubdivision of lots created between 1975 and 1979 in the RC 2 zone.

(6) Require that placement of State agricultural or conservation easements shall not result in an increase in density over that permitted without the easements.

(7) Monitor development within the APPA's to ensure that residential and non-agricultural uses protect the resources and do not overwhelm the operation of agricultural businesses.

(8) In general, zoning changes made in the agricultural priority preservation areas should protect the County's agricultural industry.

(9) Consider adding criteria to the Baltimore County Zoning Regulations (BCZR) to require the evaluation of proposed development impacts on agricultural uses located on prime and productive soils.

(10) Assure that development will have limited impact on active agricultural operations by reviewing, and, if necessary, revising setback requirements.

(11) Review uses permitted by right and special exception in the RC 2 zone to determine whether any uses that are inconsistent with the purpose of the zone should be removed and consider additional performance standards, which will mitigate the impact of the proposed uses on the adjacent farm or easement property.

(12) Enact "Right to Farm" legislation and institute a nuisance mediation board for farm operations.

(13) Consider whether certain institutional uses now permitted in the RC 2, RC 7 and RC 8 zones should be eliminated. Establish performance standards for institutions that are found to not have significant negative impacts if limited by the standards.

Rural Residential Areas

The rural residential areas are a mix of single-family residential development and woodlands, farm fields, stream valleys and areas of significant historic and cultural value. They have accommodated the bulk of new residential development in the rural areas. Associated with rural residential development, there may be institutional uses, such as religious establishments, which are preferred to be located in proximity to residences, rather than in Resource Preservation or Agricultural Priority Preservation Areas. Included in the rural residential land management areas are Parkton, Chestnut Ridge, Hereford, Jacksonville, Kingsville, and Patapsco/ Granite.

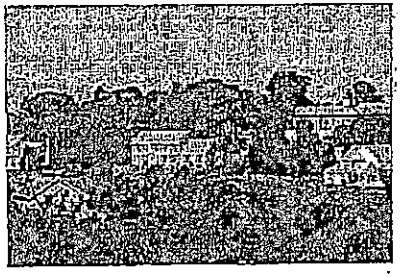
The 1979 growth management program designated rural residential areas as suitable for development. The 1989 Master Plan recognized some of the issues created by this choice. The 2000 Master Plan recommended limiting rural residential development. The majority of the land within these areas is zoned RC 5.

The intensity of this development is a suburban residential pattern with densities equal to one dwelling unit per 1-1/2 to 2 acres. Because this rural-suburban residential development is dependent upon well and septic services, the development pattern takes on a haphazard appearance and consumes large quantities of land. This type of development comes at a tremendous cost in terms of traffic, increased infrastructure demands, disruption of the rural character, and adverse impacts on functional values of rural land and water resources.

Policy: Limit suburban development in rural areas.

Actions:

(1) Conduct detailed land use studies to



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determine: 1) buildable areas, 2) agricultural areas, and 3) environmentally sensitive areas.

(2) Recommend that the County Council consider rezoning requests for additional office, business or industrial zoning in rural residential areas, in conjunction with the recommendations of any approved plan for the area.

(3) Adopt County standards appropriate for rural residential areas that include open space, architecture, site layout, lighting, bicycles, and pedestrians.

(4) Adopt cluster principles to maintain adjacent forests and open space, which help retain rural character.

(5) Provide effective buffers between development projects to maintain rural character.

(6) Preserve and connect open spaces through cluster development and open space acquisition.

Rural Commercial Centers

Only two designated rural commercial centers will continue to provide local services and facilities for the surrounding rural area. These centers are Hereford and Jacksonville.

The two rural commercial centers contain a certain mass of retail and office service uses that should not be spread or repeated throughout the rural areas. These areas will continue to be the only locations within the rural area where such services will be concentrated. The size, scale, and quality of development have been a continuing issue in these centers. In addition, the ultimate build out limits of these areas needs to be considered.

Policy: Manage growth in rural commercial centers

Actions:

(1) Manage development through specific rural commercial center master plans that are regularly updated. The master planning process should determine the ultimate boundaries and build out of these areas

(2) Develop overlay districts or specific zoning classifications with design performance criteria unique to each of the centers so issues of use, size, scale and design are addressed. Each center has unique characteristics that should be enhanced by new development.

(3) Adopt development performance guidelines and standards to ensure design quality, scale of uses, natural resource protection, buffers to agricultural uses, adequate open space close to homes, and pedestrian accessibility.

(4) Provide infrastructure support such as stormwater management.

(5) Provide adequate buffers and transitions between commercial projects and differing adjacent land uses to maintain rural character.

HISTORIC AND CULTURAL RESOURCES

Baltimore County has a wealth of cultural and historic resources. Historic communities are generally well planned with diverse architectural styles that are visually interesting. They are built at a human scale and are almost always walkable. Historic resources link us to our past—they provide tangible evidence



of the County's cultural, social and architectural past, and are a testimony to the women and men who came before us to shape our destiny.

Baltimore County has two historic designations that protect its resources to the highest degree possible: the Landmarks List and the County Historic District. Structures with either designation are protected from demolition and all exterior alterations are subject to Landmarks Preservation Commission (LPC) approval.

The Landmarks List is comprised of structures that contribute significantly to Baltimore County's history because they are associated with a person, group, event of historic importance; they are a distinctive example of a particular architectural style and/or they are a good example of the work of a master builder or noted architect. Other criteria spotlight the resource's artistic merit, or whether it contains and may be likely to yield information or materials important to prehistory or history.

A Baltimore County Historic District is more difficult to establish because proprietors owning at least 75 percent of the land within the designated area must agree to form an historic district. New developments are subject to LPC approval, which ensures compatible infill development.

Two other historic designations afford limited protection. The 1966 Historic Preservation Act created the National Register of Historic Places (NRHP). The NRHP is a record that includes National Register districts as well as individually listed properties. Both categories require a thorough review during the planning phase of federally funded projects. A National Register designation provides no protection against demolition or inappropriate exterior alterations, nor do they provide any control over the compatibility of infill development. On the other hand, contributing structures within a National Register districts, as well as individual properties listed on the NRHP, are eligible for the County Historic Property Tax Credit, which at least assures the retention of the integrity of properties participating in the tax credit program.

Policy: Promote historic preservation through improved education.

Awareness is growing about sustainability and the importance of living in a manner that is environmentally responsible. Redevelopment of an existing building is the ultimate form of "green" development, as opposed to demolition.

Actions:

(1) Provide information about preservation issues so the public can make informed decisions about historic resources.

(2) Develop programs to educate the public about the economic, environmental, and cultural benefits of historic preservation.

(3) Make pertinent information available on the Baltimore County web site along with links to additional sources and studies.

Policy: Preserve historic structures and their settings.

The preservation of historic resources was an issue raised in the 1979, 1989 and 2010 Master Plans. Considerable progress has been made in response to the actions recommended in these documents. Amendments to the County's Preservation Law clarified vague regulations. The County enacted a very generous and popular historic property rehabilitation tax credit program to make the rehabilitation of historic buildings more feasible. Numerous properties were added to the Final

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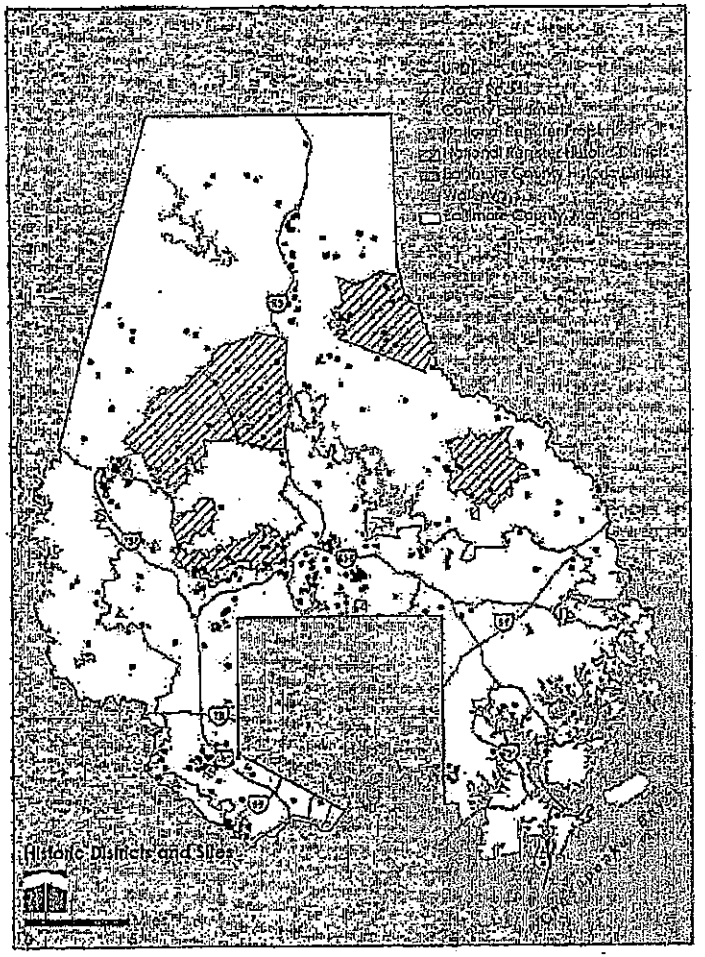
Map 25: Historic Districts and Sites



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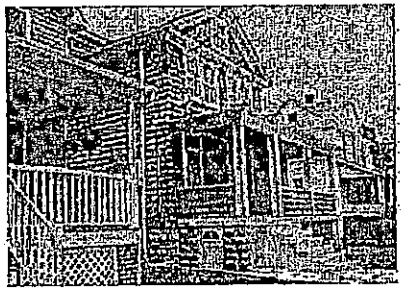
Landmarks List, and several new National Register Districts were created. Yet, while Baltimore County takes pride in these accomplishments, the need for preservation has lost none of its relevance today.

The property tax credit program for the rehabilitation of historic properties has been a great success for residential properties and for comprehensive commercial rehabilitation work. But the smaller, more routine maintenance projects for income-producing properties have not benefited. As a consequence, there is little incentive for commercial property owners to maintain their properties. Under the current law, residential property owners receive a 20 percent property tax credit on eligible rehabilitation costs. Income-producing properties receive a 10 year freeze on the property tax increase generated by the rehabilitation, i.e. the work has to be substantial to result in the reassessment of the property's value. Small jobs, such as painting the historic façade of a small shop, putting on a new roof, or installing a new air-conditioning unit does not result in a reassessment and therefore, is not eligible to receive a tax credit. Yet it is precisely these types of routine maintenance projects that are needed to keep historic commercial buildings in good repair. The National Register District of Reisterstown is probably the best example of a designated historic area that would benefit greatly if the historic rehabilitation tax credit program for income-producing properties would be widened to provide a tax credit for improvements under $ 50,000. Additionally, there are numerous income-producing structures on the Landmarks List that would benefit from the program. The optimal way to encourage historic preservation is when property owners agree to preserve and maintain their historic resources out of their own volition.

Actions:

(1) Continue to utilize nomination to the landmarks list as a means to safeguard historic buildings.

(2) Encourage and facilitate use of the County's historic property rehabilitation tax credit program.



Policy: Preserve and protect cultural resources.

Many older communities have structures that are valued by local communities, but do not meet the criteria for landmarks listing for one reason or another. Such cultural resources are frequently found in the County's former village centers, in older African-American communities and on commercial routes along old toll roads. A cultural resource may be an old school house, a former movie theater, a lodge, a church, or a store where people used to gather. It also may be an entire community that is in danger of having its roots forgotten.

Churches and schools in the County's older communities are other cultural resources that are frequently endangered. Churches are often too small to meet contemporary needs and/or may have dwindling congregations that are no longer able to support the church. Likewise, one or two room country schools, or schools that were a product of segregation have ceased operations. They often have little architectural interest but are of importance to their respective communities. Alternative uses and grant opportunities should be explored to keep these resources viable.

The 1979 Master plan recognized 39 Historic African-American Communities as valuable cultural resources. The 1989 Master Plan began to address the need for improving basic services and infrastructure, rehabilitation of historic buildings, and the importance of improving the quality of some housing in these communities. While much has been done over the

last 20 years to enhance the quality of life in these communities, some are still in need of assistance. This Master Plan builds upon previous efforts to acknowledge that Baltimore County's diversity is greatly enriched by its historically African-American communities, and recognizes the important of continuing to protect and enhance these valuable cultural resources.

Actions:

(1) Incorporate a list of cultural resources in community plans and explore the best methods to preserve them.

(2) Continue to work cooperatively with the Department of Public Works, the Office of Community Conservation and the communities to support improvements to preserve and enhance Historic African-American Communities.

Policy: Increase awareness about the importance of archeological resources.

Baltimore County needs to strengthen the preservation of archeological resources, as much of the County's history is buried in the ground. Greater attention should be paid to archeological resources in cases where there has been little previous disturbance associated with redevelopment or road projects.

Action:

(1) Educate the public and other agencies about the importance of archeological resources.

Policy: Coordinate historic preservation with the County's rural strategy.

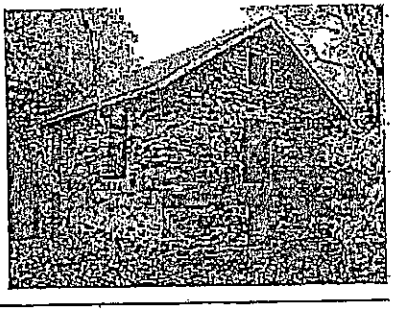
In rural agricultural areas, the preservation of historic resources presents a unique opportunity. Historic structures in the countryside tend to derive part of their historic significance from their bucolic setting, which is frequently tied to its economic function. Typically, the historic resource is composed of the primary structure along with a cluster of functionally and visually related outbuildings, such as barns, springhouses, and stables, set in a pastoral landscape of fields, streams and woodlands.

Rural areas that have retained their historic character, continue to be among the County's most desirable places of residence. Historic structures tend to be more compatible in design, scale and massing with the rural landscape than modern housing. However, sustaining the bucolic beauty of the rural landscape is challenging because maintaining a historic home can be expensive, and many property owners prefer newer and larger homes. Generally, rural subdivisions change the character by flatly grading the landscape with larger homes that are visible for miles. Even a single inappropriately designed or poorly sited new dwelling can dramatically alter the rural character.

Historic preservation goals coincide with agricultural preservation goals, environmental protection objectives and scenic preservation aims of the Master Plan in several ways. Historic properties tend to be smaller and thus create less impervious surface. Historic preservationists support the retention of a property's traditional agricultural use, thereby preserving scenic resources. Finally, saving and restoring structures, instead of replacing them with new structures, is in itself an act of sustainability that preserves historic resources.

Actions:

(1) Encourage owners of rural historic resources to place their property on the Landmarks List – particularly properties that



are important to the agricultural history of Baltimore County and which are located along scenic routes.

(2) Continue to protect designated "view sheds" of historic resources – either by limiting new development within view of the historic resource, or by buffering new development from the view of such resources.

SCENIC RESOURCES

The preservation and enhancement of the scenic resources in Baltimore County is an essential component contributing to the quality of life of residents. Scenic resources consist of scenic corridors, scenic views, and gateways. In 1991, the County adopted a set of development guidelines that have raised awareness and recommended development alternatives for protecting scenic resources.

Scenic Corridors and Views

Most of the scenic corridors and views are located in rural areas. The scenic view map provides the beginning of a list of the views for establishing a comprehensive inventory in the near future. Following the adoption of the 1989 Master Plan, the County produced a series of scenic route maps for each council district, which combined the significant visual and historical elements into self-guided scenic tours. The protection of the Interstate 83 (I-83) corridor in northern Baltimore County is a showcase of the inter-governmental efforts on scenic views preservation.

The endeavor for preserving scenic corridors and views ought to emphasize lands zoned for resource protection including RC 2, RC 4, and RC 7. The County will continue to maintain coordination with the State Highway Administration (SHA) and seek available state and federal funds for protection of scenic corridors and views.

Policy: Preserve scenic corridors and views through proper zoning and coordination with federal and state governments.

Actions:

(1) Coordinate scenic resource management practices with the national and state Scenic Byways Programs.

(2) Continue to preserve properties within the I-83 scenic view shed through easement purchases, as funds are available and through RC4 clustering.

(3) Evaluate proposed improvements to state and county roads and bridges regarding their impact on scenic resources in compliance with the adopted *Rural Roads Standards*. Where public safety allows, the narrow and/or winding character of roads is part of the scenic experience and ought to be preserved.

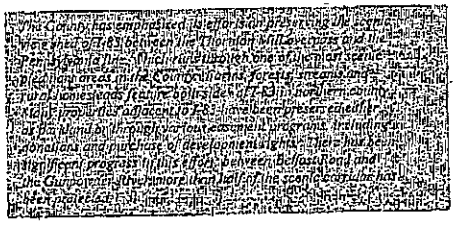
(4) Assess proposed development impacts on scenic resources.

(5) Clarify language regarding scenic corridors and views protection and make it consistent amongst the Master Plan, Comprehensive Manual of Development Policies, Baltimore County Zoning Regulations, Baltimore County Code, and SHA Context Sensitive Solutions for work on scenic byways.

(6) Establish criteria for identifying significant views and geocode them on maps.

(7) Apply a systematic methodology for evaluation of scenic routes and preservation techniques.

(8) Update scenic resources map in accordance



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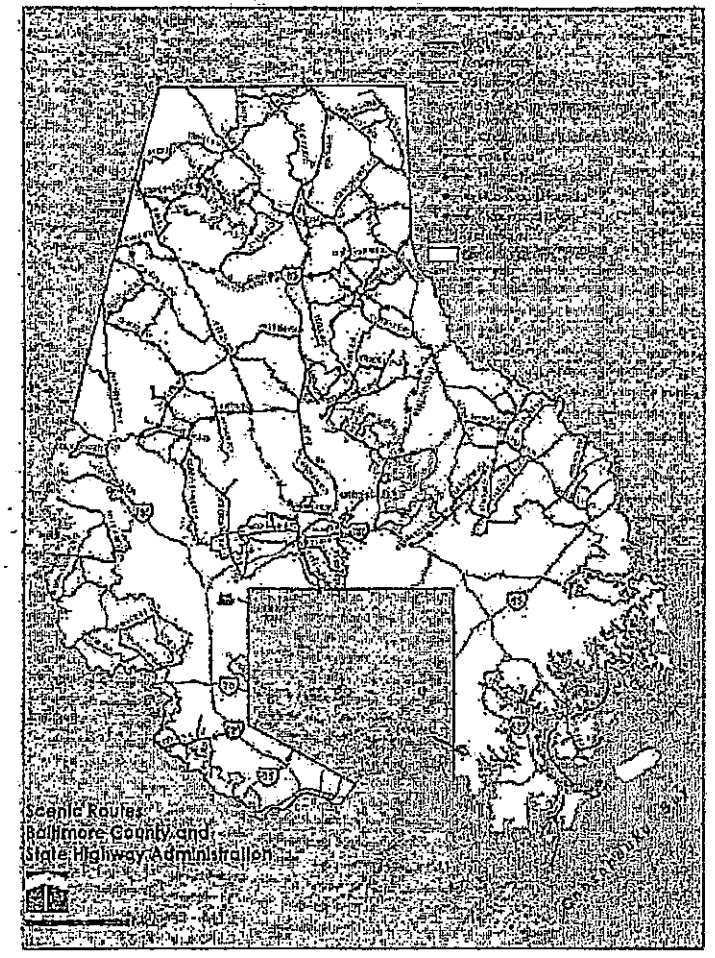
Map 25 Scenic Routes



with the most recently adopted state scenic byways.

(9) For properties along scenic routes or within scenic viewsheds, variances, amendments, and special exceptions should be granted sparingly.

Charles Street National Scenic Byway

Charles Street is a main thoroughfare stretching from downtown in the City of Baltimore to Towson in Baltimore County. The County and the City of Baltimore collaborated with interested citizens, civic groups, and state agencies, developing a byway management plan for Charles Street. The purpose of this plan was to prepare for the nomination of Charles Street as a National Scenic Byway. In autumn 2009, the U.S. Secretary of Transportation Ray LaHood designated Charles Street a National Scenic Byway, together with 41 other designations in the nation to the America's Byways® collection. This designation allows the City of Baltimore and Baltimore County to apply for grants for preserving and enhancing scenic characteristics of Charles Street.

Policy: Preserve and enhance the Charles Street National Scenic Byway characteristics.

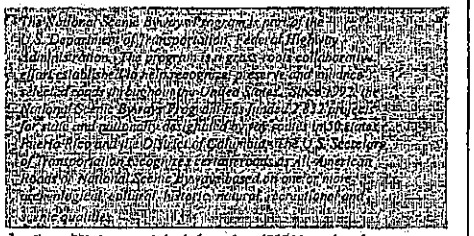
Actions:

(1) Apply for grants to implement actions outlined in the Baltimore County portion of the Charles Street Byway Management Plan.

(2) Collaborate with the Baltimore County Office of Tourism to prioritize activities in compliance with the Byway Management Plan

County Gateway Designations

Gateways are important elements of the County's visual fabric contributing to the community identity and the sense of transition between urban and rural development. Gateways can be located within either urban or rural areas, and mostly at the boundary between urban and rural areas. The specific design treatment of development for these gateways may vary, depending upon the location and structural type of gateways. In addition, the County worked with



the State Highways Administration (SHA) to develop bridge designs along the 695 Beltway that strengthen the sense of arrival into the adjacent communities and promote the community uniqueness.

Policy: Enhance gateway designations through evaluation, design, and construction.

Actions:

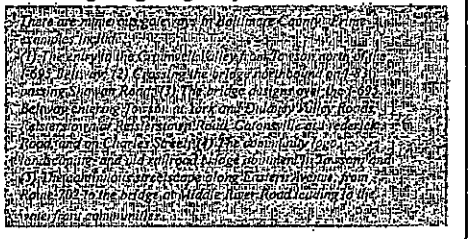
(1) Evaluate existing gateways and identify additional gateways.

(2) Formulate appropriate design guidelines as part of community plans and streetscape projects.

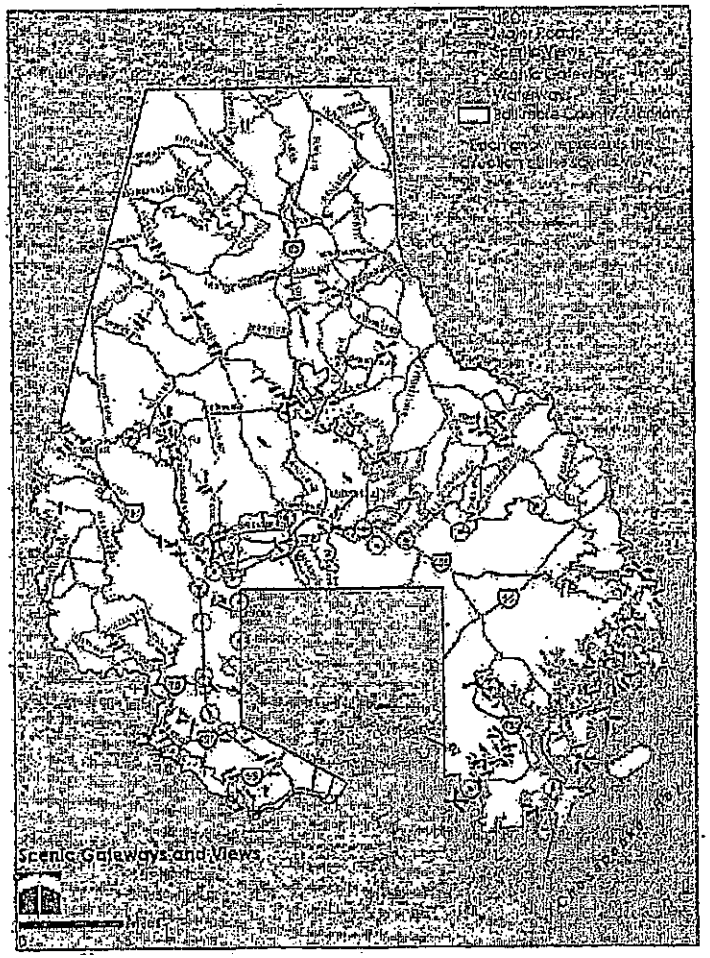
(3) Examine the design aspects of proposed development as part of the development review process.

(4) Develop general guidelines for gateways in the Comprehensive Manual of Development Policies.

(5) Continue to work with SHA to develop bridge designs at gateway locations.



Map 7: Scenic Gateways and Views



People's Counsel's Survey; Source: 2020 Master Plan Scenic Routes Map 6, P. 100

Designated Scenic vs. Not Designated Scenic Roads: Baltimore County Northern Tier

ADC Map 13: Northwest bordering Pennsylvania line

Scenic on MP 2020 Map 26: Middletown, Keeney Mill, Cotter, Beckleysville

Not listed on MP 2020, Map 26: Ruhl (E,W,S), Flintstone, Rockdale, Clipper Mill, Baker Schoolhouse, Chickentown, Slab Bridge

ADC Map 14: Freeland, West of I-83, bordering Pennsylvania line

S: Freeland, Keeney Mill, Middletown
NS: New Freedom, Ridge, Millers Mill, Keller, Mt. Zion, Morris, Gore Mill, Hesson, Valley Mill

ADC Map 15: Maryland Line, north of Parkton, bordering Pennsylvania line

S: Freeland, York, Old York, Bond
NS: Orwig, Heathcote, Harris Mill (Old), Turners Crossing, Lentz, Jordan Sawmill, Sampson, Downes, Kauffman, Cameron Mill, Bentley

ADC Map 16: Northeast corner, bordering Pennsylvania line

S: Old York, Kirkwood Shop, Bond
NS: W Liberty, Dunk Freeland, Mason Dixon, Gibson, Meredith, Openshaw, Green, Ensor

ADC Map 18: Prettyboy Reservoir Area

S: Beckleysville, Spooks Hill
NS: Bulls Sawmill, Traceys Store, Foreston, Kidds Schoolhouse

ADC Map 19: Prettyboy, Gunpowder State Park, Rayville

S: Middletown, Spooks Hill, Falls,
NS: Rayville, Armacost, Bunker Hill, Cooper, Dairy, Walker, Eagle Mill, Bulls Sawmill, Millers Lane

ADC Map 20: Parkton, White Hall

S: York, Wiseburg, Greystone, Middletown
NS: Stablers Church, Downes, Stablersville, Miller, Ensor, White Hall, Bernoudy, Hunter Mill, Dairy, Frederick

ADC Map 21: White Hall, Greystone Golf Course

S: Graystone, Vernon
NS: Hunter Mill, Garrett, Burke, Jolly Acres

PC CBA Ex 23

People's Counsel's Survey; Source: 2020 Master Plan Scenic Routes Map 6, P. 100

Designated Scenic vs. Not Designated Scenic Roads: Baltimore County Northern Tier

Quantitative Summary

Designated Scenic Roads: ADC Maps 13-16, 18-21

Beckleysville (13, 18), Bond (15, 16)) Cotter (13), Falls (19), Freeland (13, 14), Greystone (20, 21), Keeney Mill (13, 14), Kirkwood Shop (16), Middletown (13, 14, 19, 20), Old York (15, 16), Spooks Hill (18, 19), Vernon (21), Wiseburg (20), York (15, 20)

Summary: 14 Designated Scenic Roads

Not Designated Scenic Roads

Armacost (19), Baker Schoolhouse (13), Bentley (15), Bernoudy (20), Bulls Sawmill (18, 19); Bunker Hill (19), Burke (21), Cameron Mill (15), Chicketnown (13), Clipper Mill (13), Cooper, (19), Dairy (19, 20), Downes (15, 20), Dunk Freeland (16), Eagle Hill (19), Ensor (16, 20), Flintstone (13), Foreston (18), Frederick (20), Garrett (21) Gibson (16), Gore Mill (14), Green (16), Harris Mill (old) 15, Heathcote (15), Hesson (14), Hunter Mill (20, 21), Jolly Acres (21), Jordan Sawmill (15), Kauffman (15), Keller (14), Kidds Schoolhouse (18), Lentz (15), Mason Dixon (16), Meredith (16), Miller (20), Millers Lane (19), Millers Mill (14), Morris (14), Mt. Zion (14), New Freedom (14), Openshaw (16), Orwig (15), Rayville (19), Ridge (14), Rockdale (13), Ruhl (3: E,W,S) (13), Sampson (15), Slab Bridge (13), Stablers Church (20), Stablersville (20), Traceys Store (18), Turners Crossing (15), Valley Mill (14), Walker (19), Whitehall (20), W Liberty (16),

Summary: 59 Not Designated Scenic Roads

APP. 26

Soil is a non-renewable resource. Its preservation is essential for food security and our sustainable future

Soil is a finite resource, meaning its loss and degradation is not recoverable within a human lifespan. As a core component of land resources, agricultural development and ecological sustainability, it is the basis for food, feed, fuel and fibre production and for many critical ecosystem services. It is therefore a highly valuable natural resource, yet it is often overlooked. The natural area of productive soils is limited – it is under increasing pressure of intensification and competing uses for cropping, forestry, pasture / rangeland and urbanization, and to satisfy demands of the growing population for food and energy production and raw materials extraction. Soils need to be recognized and valued for their productive capacities as well as their contribution to food security and the maintenance of key ecosystem services.

Related links: http://www.fao.org/soils-2015/en/;
Date: 03/03/2015
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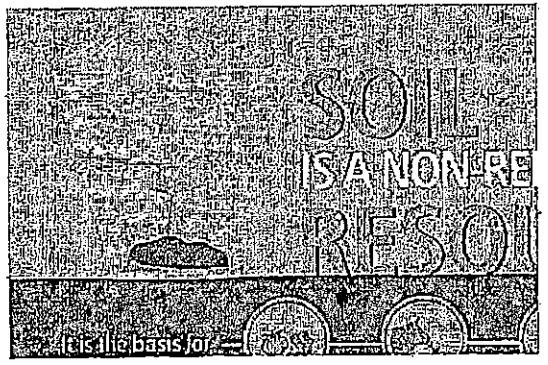

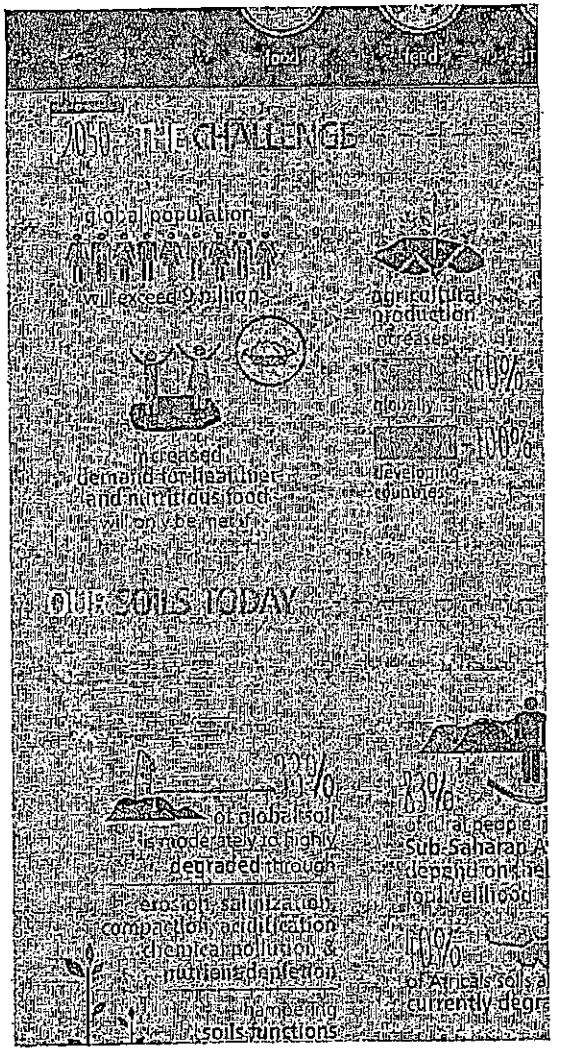

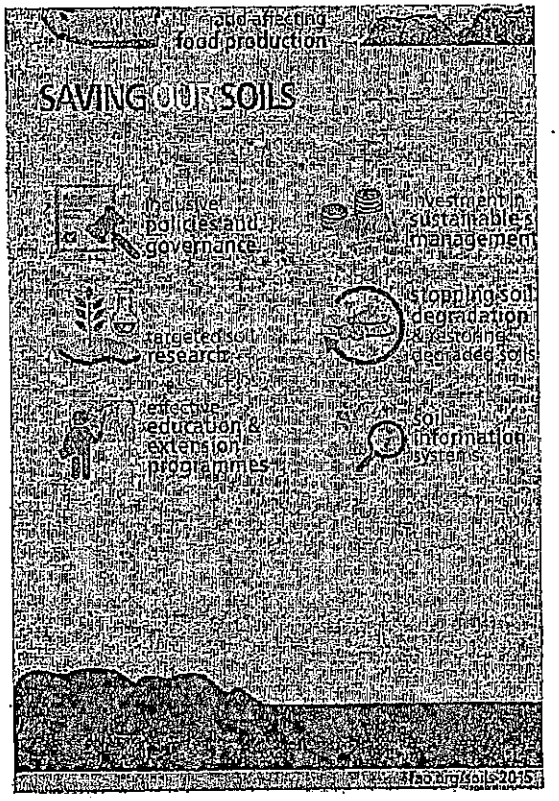

Food and Agriculture Organization of the United Nations

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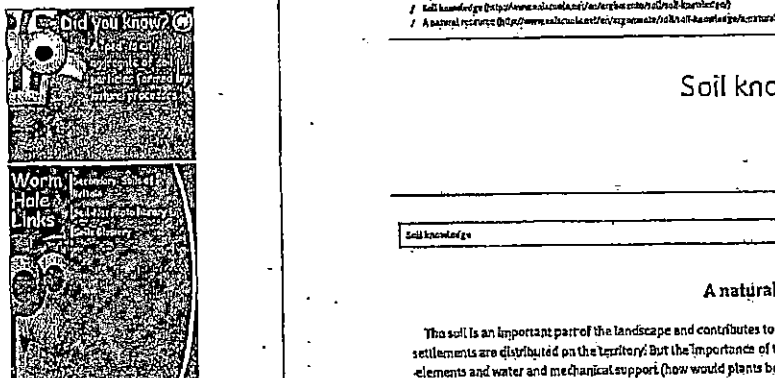
APP. 27

What is soil?

Theme: Introduction | The uses of soil | Four essential items of soil | Data

What is soil?
Why does soil matter?
Soil under the microscope
Recognising types of soil
Weathering and soil formation
Properties of soil
Soil character
pH and soil acidity
How do soils form?
Why do soils differ?
Soil as a living being
Plants and soils
The beginning of soil

Soil is one of the world's most important natural resources. Together with air and water it is the basis for life on planet earth. It has many important functions which are essential for life. Not only does it play the major part in allowing us to feed the world's population, but it also plays a major role in the recycling of air, water, nutrients, and maintaining a number of natural cycles, thereby ensuring that there will be a basis for life in generations to come. Without soil, the world's population neither would nor could survive.



Soil forms the surface skin over the landscape of the earth at the junction between the atmosphere and the lithosphere. Think of soil as a thin carpet covering the land portions of the earth. The distance from the surface of the earth, at which the soil is situated, to the very centre of the earth deep below, is over 6,000 kilometres. Of this, the soil layer is a mere one to two metres thickness of this 6,000 kilometres. It is thus a very, very thin skin indeed - both fragile and extremely precious.

Soil consists of a mixture of mineral grains that come from the rock deposits and sediments beneath them. This mixture gives the overall texture of the soil, namely whether the soil is mainly sandy, loamy or clayey. Importantly, soil also contains organic matter, mainly in the top 20 cm. Organic matter comes from rotted and decomposed vegetation, broken down by soil organisms. Soil also contains varying amounts of water depending on the climate and the water holding capacity of the soil. The remaining important ingredient is air. The amounts of each of these components varies in time and across the landscape. This is a magical mixture of ingredients that allows the soil to perform many vital needs of living beings.

Theme: Introduction | The uses of soil | Four essential items of soil | Data

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APP. 28

school energy&environment

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/ Soil knowledge (http://www.eniscuola.net/en/argomento/soil/soil-knowledge/)
/ A natural resource (http://www.eniscuola.net/en/argomento/soil/soil-knowledge/a-natural-resource/)

Soil knowledge

Soil knowledge

A natural resource

The soil is an important part of the landscape and contributes to determine the way in which natural vegetation, crops and human settlements are distributed on the territory. But the importance of the soil is mainly related to its double role as a reserve of nutritional elements and water and mechanical support (how would plants be able to stand upright if they did not have the soil to put their roots in?) for vegetation, leading to the creation of forests and protected areas. A direct observation allows us to see the fundamental importance of the soil: if we go to the mountains or to the countryside, we will see some bare rocks without plants, but next to them there will be wider areas covered by a thick soil. On this land spontaneous vegetation or crops grow. The soil is also very important for men and other living organisms as it affects water composition. In fact, the quality of underground water reserves depends on use of organic and inorganic polluting products, deriving from agricultural and industrial activities or from cities. Various chemical and physical properties of the soil affect the concentration and permanence of polluting compounds in the soil, and the probability that they get in contact with superficial aquifers by polluting them.

The soil can be extremely important for men even if it is not changed and left in its natural conditions. This is the case of protected areas (parks and oasis): the survival of the delicate ecosystems of these areas mainly depends on the fact that the soil keeps in good conditions and does not experience changes. For example, in the past men considered wet areas as unhealthy areas to be reclaimed and used for agriculture. Today wet areas are considered as very important and fragile ecosystems, whose survival can be guaranteed only by preserving the particular conditions of their soil.

Download "Soil knowledge" pdf file (http://www.eniscuola.net/wp-content/uploads/2011/01/pdf_soil_1.pdf)

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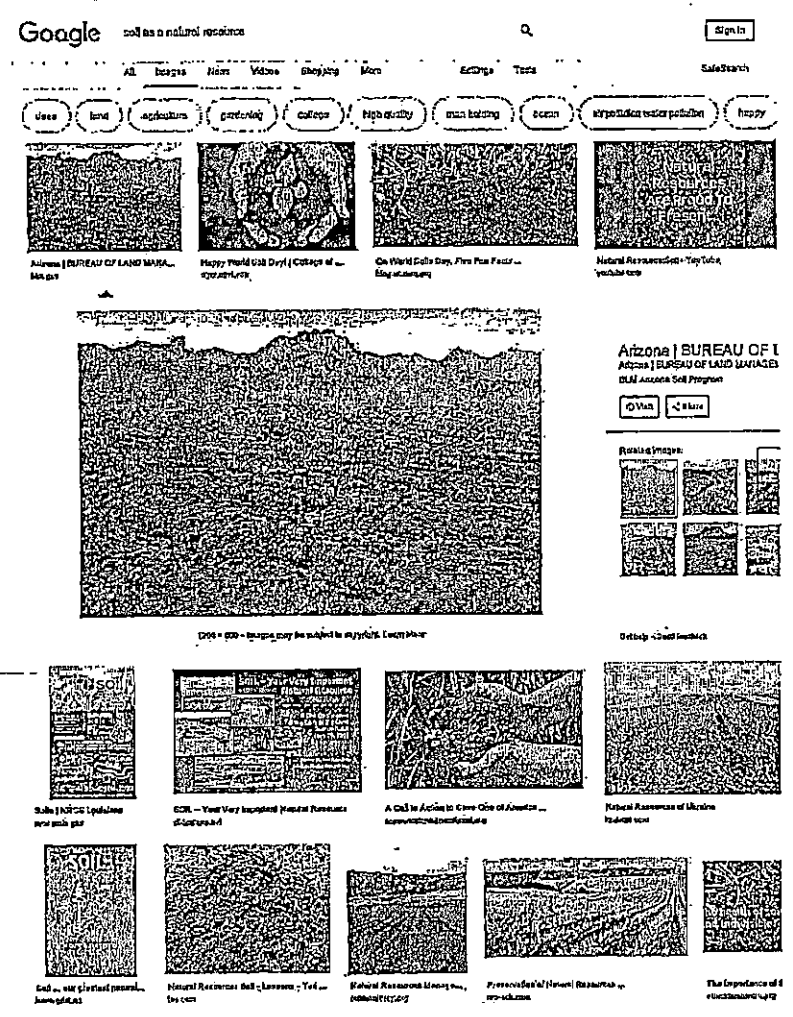
SPECIAL REPORTS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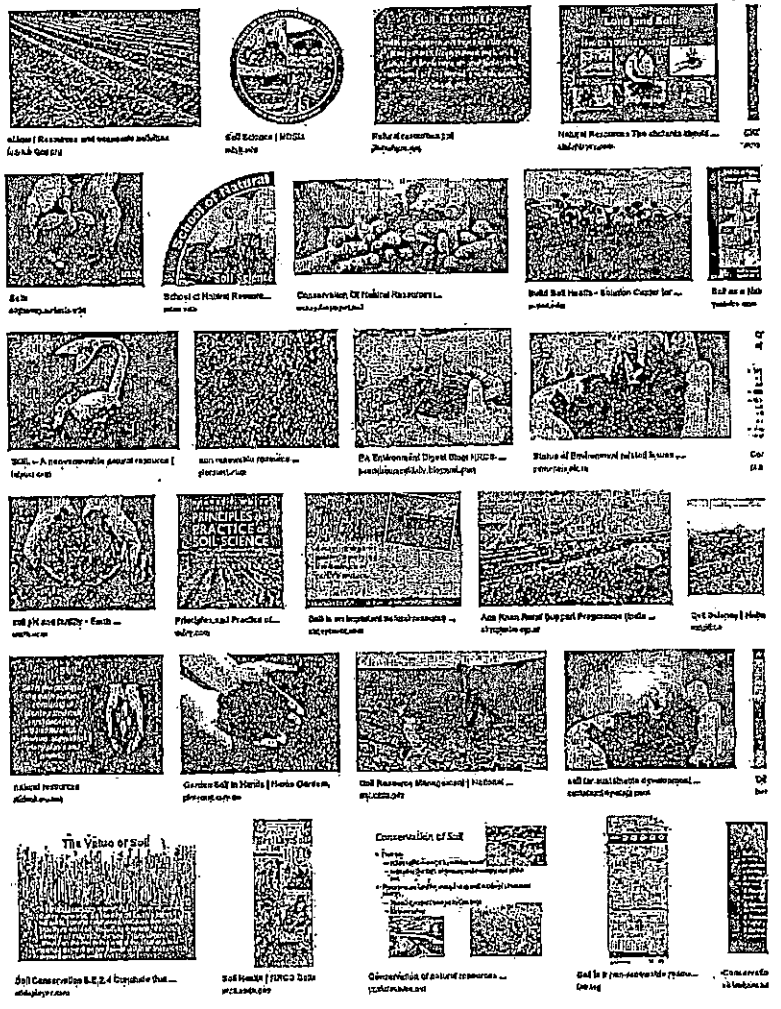
The Value of Soil
Conservation of Soil

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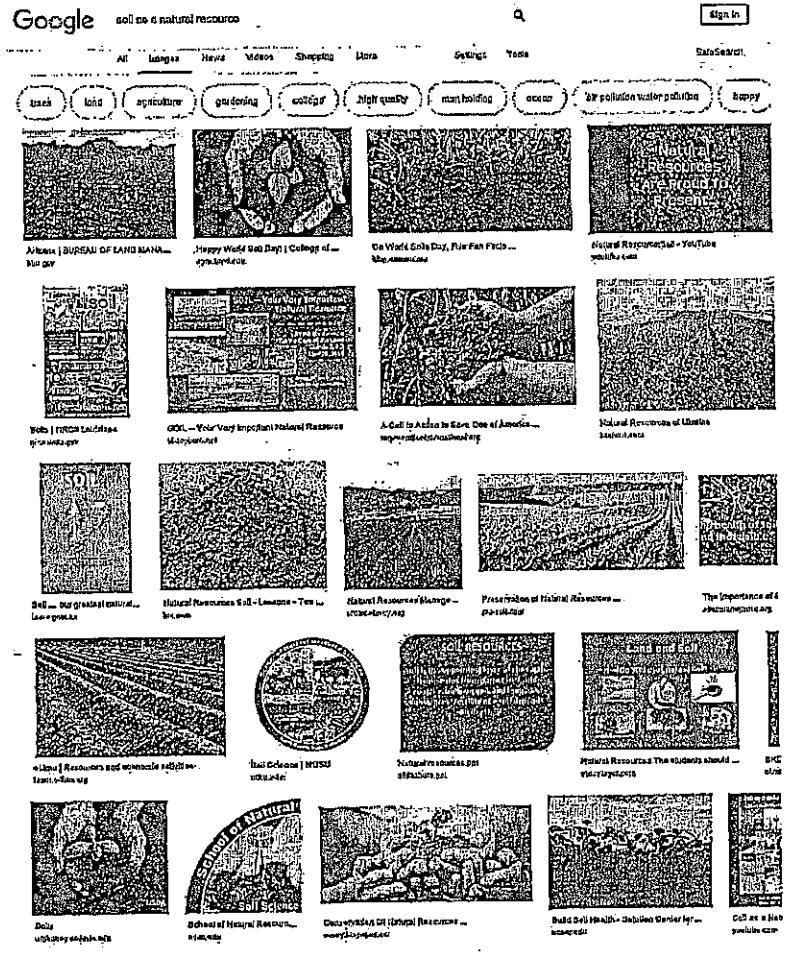
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land
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man holding
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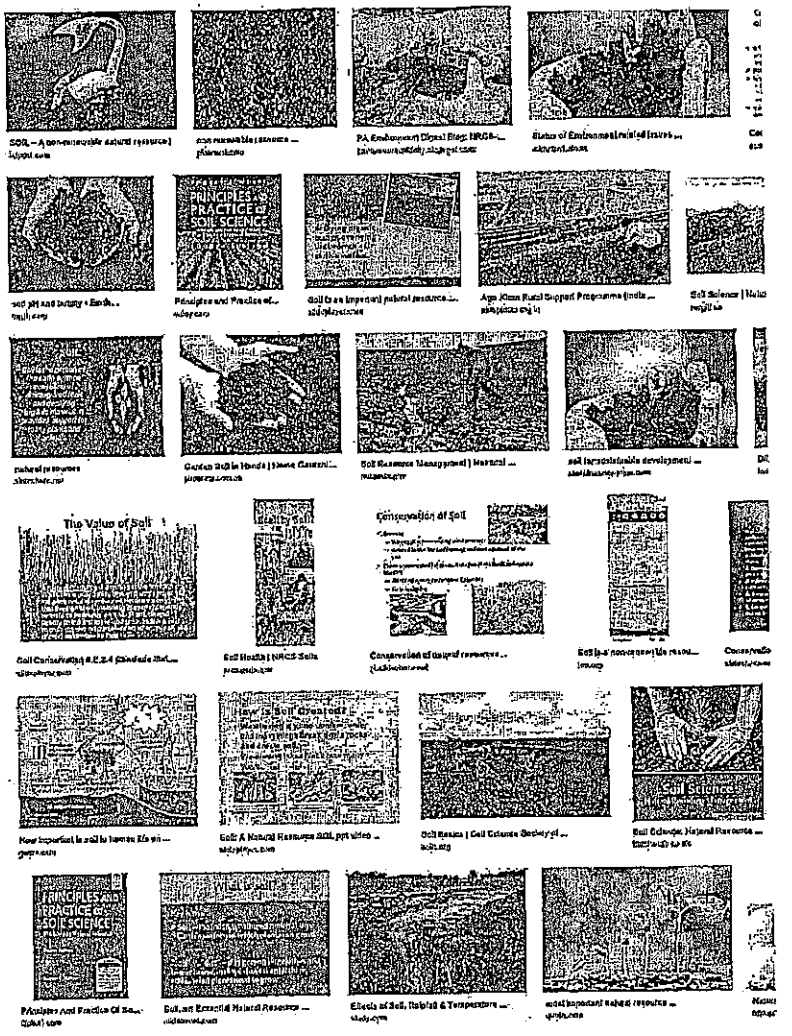

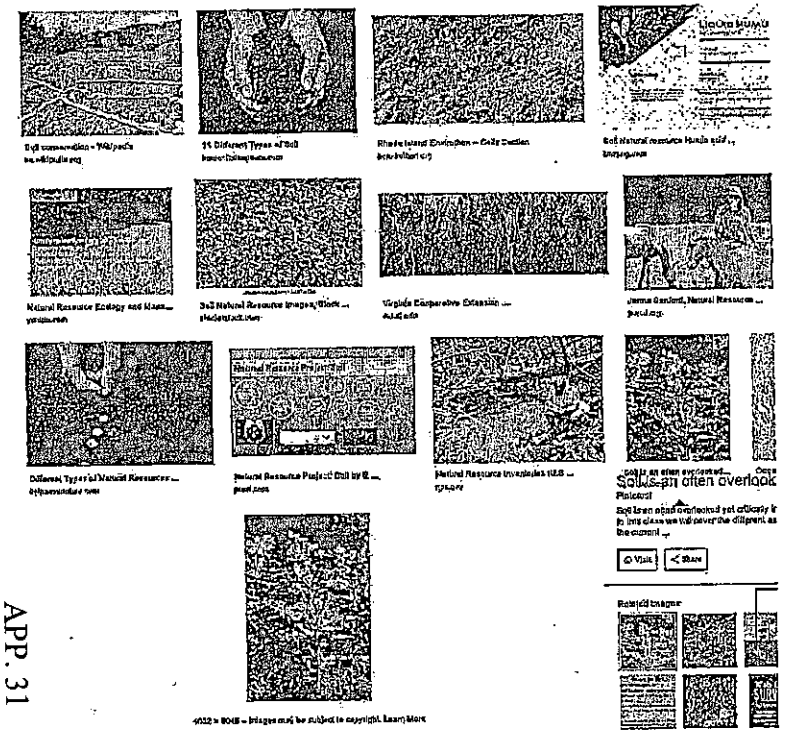

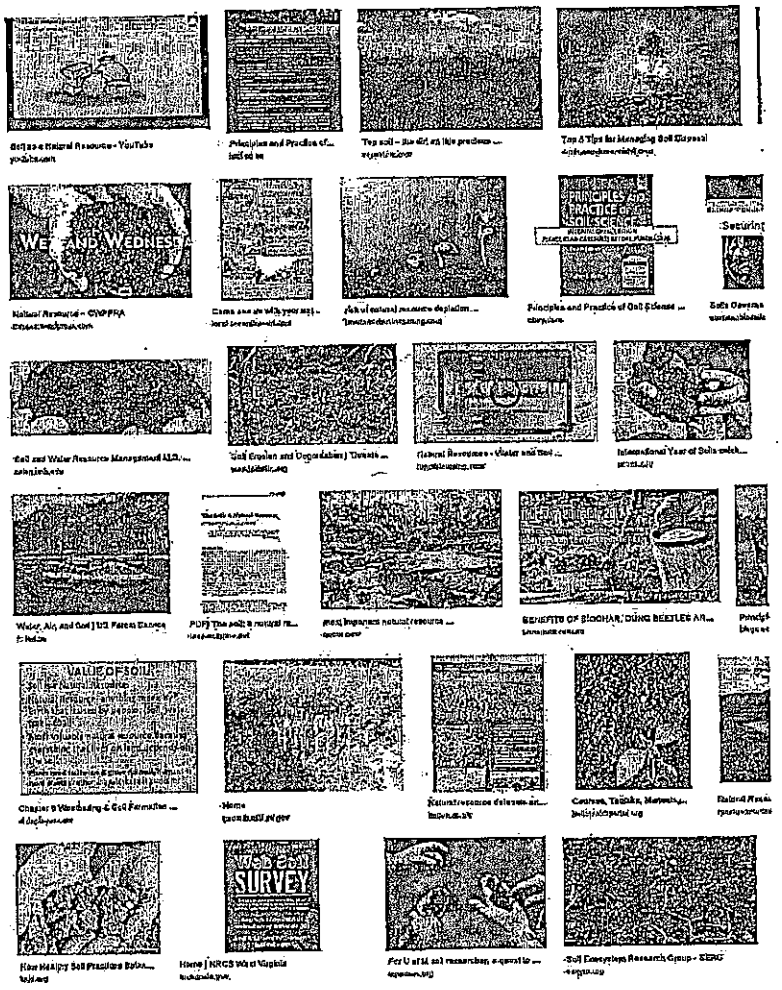

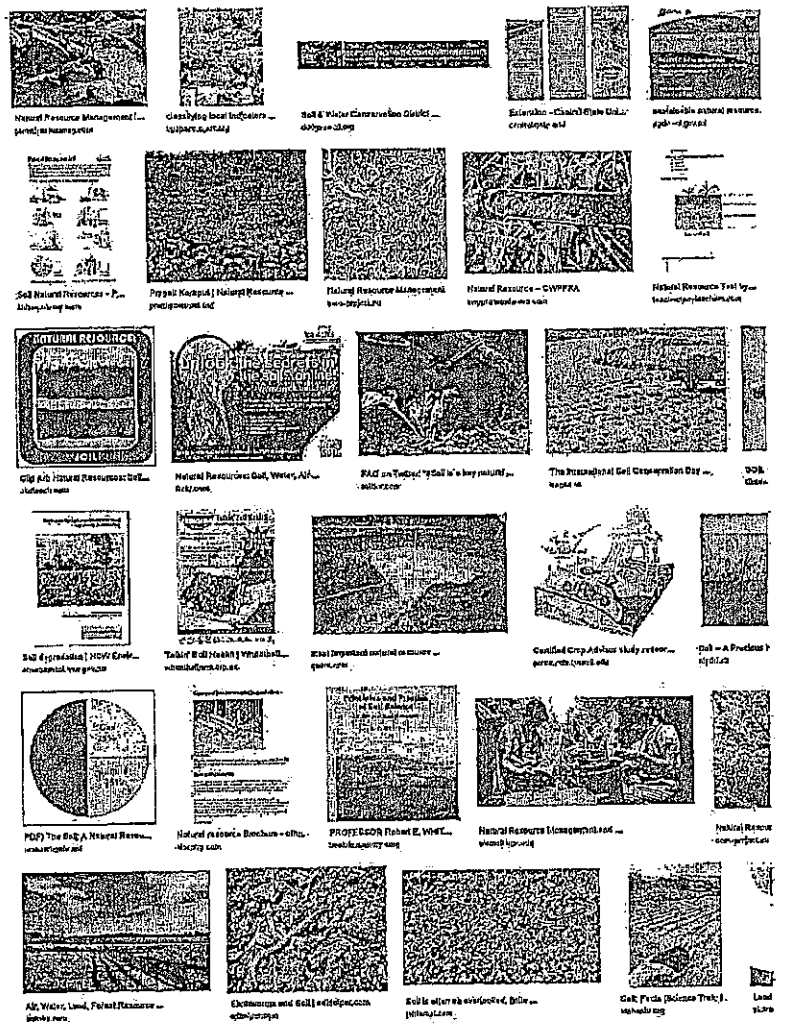

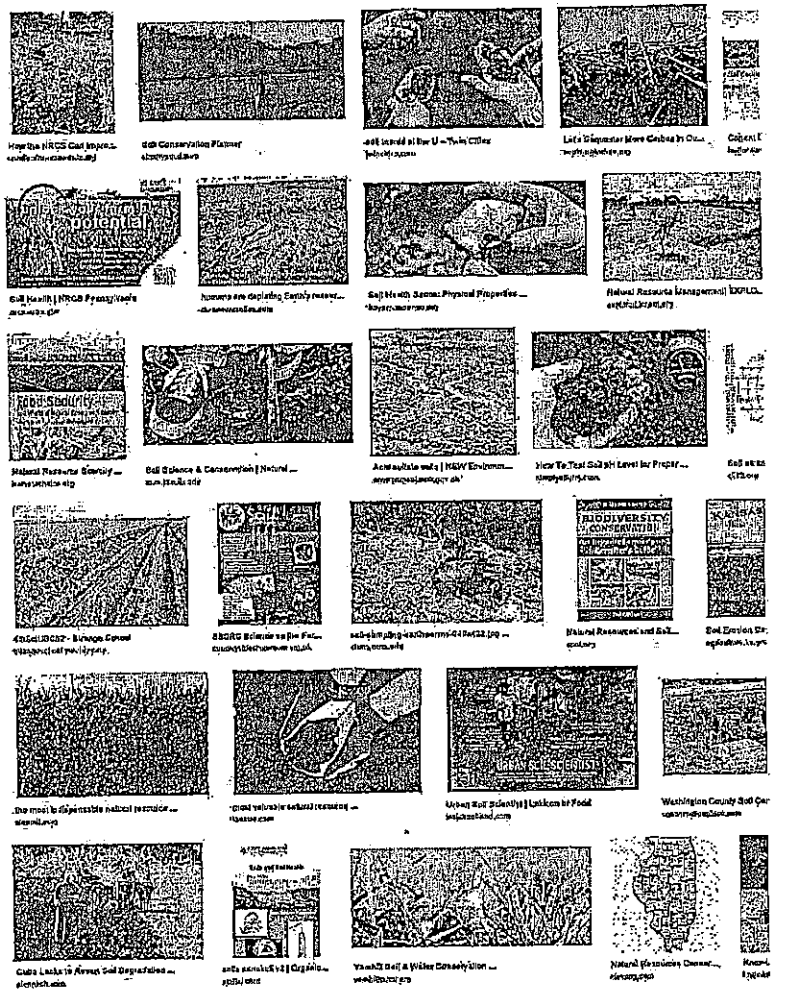

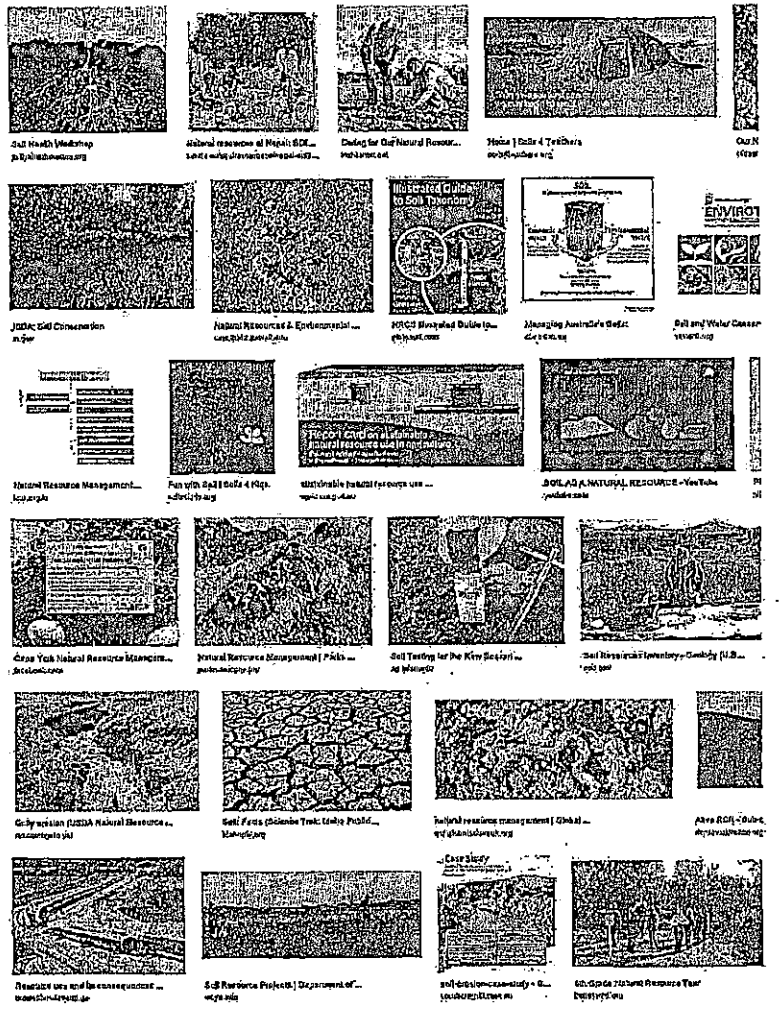

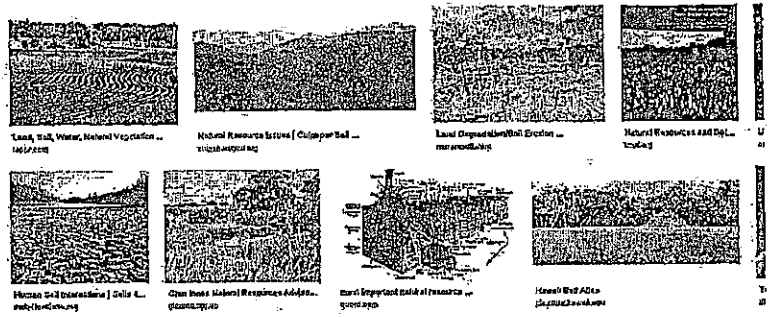

Baltimore County
GOVERNMENT

Record DRC-2018-00054:
Development Review Committee
Record Status: Completed

Record Info ▼ Payments ▼

Work Location

632 FREELAND RD
FREELAND MD 21053

Record Details

Applicant:
Mitchell J. Kellman
Daft McCune Walker, Inc.
501 Fairmount Avenue Suite 300
Towson, MD, 21286
Primary Phone:4102963333
mkellman@dmw.com

Licensed Professional:
Mitchell J. Kellman
Daft McCune Walker, Inc.
501 Fairmount Avenue Suite 300
Towson, MD, 21286
Home Phone:4102963333
Fax:4102964705
Engineer 16-PEOP-00003

Project Description:
Sassafras Solar
The request is to construct a solar facility.

Owner:
ATKINSON CHARLES GARY ATKINSON STEPHEN GORDON
632 FREELAND RD
FREELAND MD 21053

▼More Details

Related Contacts

Attorney Information
Adam M. Rosenblatt
Venable, LLP
210 W. Pennsylvania Avenue, Suite 500
Towson, MD, 21024
Primary Phone:4104946271
E-mail:amrosenblatt@venable.com

Application Information

PROJECT INFORMATION

DRC Number:	042418C
Project Acreage:	99.46
Request Type:	Limited Exemption
Request Actions:	a-1-vi
Plan Type Review:	Sketch
Zoning Classification:	RC 2

DRC DECISIONS

Granted DRC Actions:	a-1-vi

Application Information Table

MEETING INFORMATION

Meeting Type:	DRC
Meeting Date:	04/24/2018
Old Business:	No
Meeting Time:	14:00
Meeting Location:	COUNTY OFFICE BUILDING ; ROOM 123; 111 W CHESAPEAKE AVE; TOWSON, MD 21204
Meeting Facilitator:	Jan M. Cook
Meeting Status:	Completed

Parcel Information

Parcel Number:	Book:
56803	26823
Page:	Parcel Area:
0303	99.46
Land Value:	Improved Value:
148140	179330
Tax Account #:	Plat:
0701089060	0000000
Reference:	Year Built:
0000	1892
Land Area:	Unit:
99.46	A

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§ 32-4-106. - LIMITED EXEMPTIONS.

(a) *Exemption from development review and approval process.*

(1) The following proposed development is exempt from compliance with Subtitle 2 of this title:

(i) The building or preparation of land for building a dwelling for one or two families on a single lot or tract that is not part of a recorded plat;

(ii) The building or preparation of land for building on a lot of record lawfully in effect at the time of the building or preparation of the land for building, provided the lot of record did not result from a subdivision of land exempt under § 32-4-105 of this subtitle;

(iii) The construction of one tenant house or the location of one trailer on a farm tract;

(iv) The subdivision of property in accordance with a court order, a will, or the laws of intestate succession;

(v) The resubdivision or lot line adjustment of industrially zoned or commercially zoned parcels of land that have been the subject of a previously approved Development Plan and recorded plat;

(vi) The construction of residential accessory structures or minor commercial structures;

(vii) The construction of a building owned and operated by a county volunteer fire, ambulance, or rescue company that is used primarily for:

1. Storage or training purposes;
2. Fund-raising activities; or
3. Other purposes related to rescue or fire-suppression activities;

(viii) Lot line adjustments in residential zones for lots that are not part of an approved Development Plan under this title or an approved Development Plan under Article 1B of the Baltimore County Zoning Regulations. For purposes of this subsection, "lot line adjustment" means one or more alterations of a divisional property line or lines between two or more lots in common ownership or by agreement of the

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owners, provided that the alteration does not result in an increase or decrease in the number of lots and there is no increase in total residential density available to the lots considered as a whole;

(ix) Subdivision of land that was recorded before January 26, 1990 into three or fewer lots; and

(x) Except as provided in paragraph (2) of this subsection, subdivision of land into three or fewer lots for residential single-family dwellings provided that the lots are not served by a panhandle driveway.

(2) If a lot is served by a panhandle driveway, the subdivision of land into three or fewer lots for residential single-family dwellings is only exempt from:

(i) The concept plan requirements under §§ 32-4-211 through 32-4-217 of this title; and

(ii) The county review requirements under §§ 32-4-226 and 32-4-227 of this title.

(3) All development exempted under this subsection shall comply with Subtitles 3, 4, and 5 of this title and all applicable Baltimore County Zoning Regulations.

(b) *Exemption from community input meetings and Hearing Officer's hearing.* The following development is exempt from the community input meeting and the Hearing Officer's hearing under Subtitle 2 of this title:

(1) Lot line adjustments, including the combination of lots or parcels;

(2) Amendments to an approved Development Plan or plat that do not materially alter the proposed development;

(3) The subdivision of land that is in an approved state agricultural land preservation district or county agricultural easement for the purpose of the conveyance of the lots to the owner or the children of the owner under Title 2, Subtitle 5 of the Agriculture Article of the Annotated Code of Maryland and Article 24 of the Code;

(4) The subdivision of a farm tract into two lots;

(5) The subdivision of land into three or fewer lots for residential single-family dwellings;

(6) The construction of accessory structures;

(7) The subdivision of land or buildings in a planned office or industrial park for which a Development Plan has been approved in accordance with this title;

(8) A minor development that does not exceed a total of three lots; and

(9) A development plan processed under § 235.B.8. of the Baltimore County Zoning Regulations is subject to review by the Design Review Panel.

(c) *Development of land in a county agricultural easement.*

(1) The use or development of land in a county agricultural easement shall be governed by Article 24 of the Code.

(2) If there are conflicting provisions, the provisions of Article 24 of the Code shall take precedence over this title and the Baltimore County Zoning Regulations.

(d) *R.C. 6 zones.* Notwithstanding any other provisions of this section, all development in a R.C. 6 zone is subject to Subtitle 2, Part V of this title.

(1988 Code, § 26-171) (Bill No. 172, 1989, § 2, 11-26-1990; Bill No. 18, 1990, §§ 2, 3, 3-30-1990; Bill No. 106, 1990, §§ 1, 2, 6-29-1990; Bill No. 1, 1992, § 2, 3-2-1992; Bill No. 50-93, § 3; Bill No. 73-00, § 3, 9-15-2000; Bill No. 79-01, § 2, 7-1-2004; Bill No. 75-03, § 8, 7-1-2004; Bill No. 54-05, § 1, 2-16-2005; Bill No. 58-09, § 4, 8-17-2009; Bill No. 38-11, § 2, 8-25-2011)

Annotation— Former § 26-171 (1988) cited in Marzullo v. Kahl, 366 Md. 158, 783 A.2d 169 (2001).

APP. 36

mining partnership *n* : a legal partnership in which the partners agree to conduct mining operations and to share profits and losses, which is recognized in many states as having the character of an ordinary partnership except that it exists only during the existence of actual mining operations, which upon the death or bankruptcy of a partner is not dissolved, and in which upon the sale of a partner's interest his assignee becomes a partner regardless of the consent of the other partners

¹min·ion \'minyən\ *n* -S [MF *mignon* darling, fr. *mignot* dainty, wanton, fr. OF, perh. of Celt origin; akin to OIr *min* fem. of *migen*] **1** : an obsequious or smooth, gentle — more at MITIGATE] **1** : an obsequious or servile dependent : CREATURE 3a ⟨the inability of a dictator's ~s to tell him the truth —Reinhold Niebuhr⟩ **2** : a piece of light artillery of about 3-inch caliber and 125 paces range used in the 16th and 17th centuries **3** : one highly esteemed and favored : FAVORITE, IDOL ⟨his great charity to the poor embears him the ~ of the people —Jonas Hanway⟩ **4** [F *mignonne*, fem. of *mignon*] : an old size of type of approximately 7-point and between nonpareil and brevier **5** : a subordinate (as an agent, deputy, or follower) of an individual or organization; *esp* : one having an official status ⟨the masters, not the ~s of the state —Russell Davenport⟩ ⟨a little fat director . . . was dispatching ~s to chivy and silence the gaping natives —Jeremy Potter⟩ ⟨invasion of their homes by governmental ~s —*Books of the Month*⟩

²minion \"\ *adj* [MF *mignon*, fr. *mignot* dainty, wanton] *archaic* : DELICATE, DAINTY, PRETTY ⟨made . . . a downward crescent of her ~ mouth —Alfred Tennyson⟩

³minion *var of* MUNNION

min·ion·ette \,minyə'net\ *n* -S [F *mignonnette*, fr. obs. F fem. of *mignonnet* dainty, fr. MF, fr. *mignon*] : an old size of type of approximately 6 ½-point and between nonpareil and minion

miniscule *var of* MINUSCULE

min·ish \'minish\ *vt* -ED/-ING/-ES [ME *menusen*, *minishen*, fr. MF *menusier*, *menuiser* to lessen, mince, fr. (assumed) VL *minutiare* to mince, fr. L *minutia* smallness, minuteness, fr. *minutus* minute + *-ia* -y — more at MINUTE] *archaic* : to make less (as in size, amount, or degree) : make fewer in number : diminish in power or influence : LESSEN ⟨have ~*ed* their numbers —Sir Walter Scott⟩ ⟨would not . . . ~ by a tittle the respect due to the Magistrate —J.R.Lowell⟩ ⟨without . . . muddling it up with myths which simply ~ its interest —George Saintsbury⟩

¹min·is·ter \'minəstə(r)\ *n* -S [ME *ministre*, fr. OF, fr. L *minister* servant; akin to L *minor* smaller — more at MINOR] **1** : one that acts under the orders or authority of another ; one employed by another for the execution of purposes ; AGENT ⟨the angels are ~s of the divine will —H.P.Liddon⟩ ⟨a principle to which time is the ~ and not the master —P.E.More⟩ **2 a** : one duly authorized (as by ordination) to conduct Christian worship, preach the gospel, and administer the sacraments: as (1) : a priest who officiates at an altar in the conduct of a service of worship (as a mass) (2) : a deacon or subdeacon at solemn services (3) : a clergyman of a Protestant church (4) : PREACHER (5) *chiefly Eng* : a member of the clergy of a nonconformist church **b** : one who performs the duties of a clergyman during his customary vocation but who has never been formally licensed or ordained as a minister **3** *archaic* : one that waits upon or serves : ATTENDANT, SERVANT ⟨cooks and other inferior ~s employed in the . . . kitchens —Edward Gibbon⟩ **4** : one exercising non-Christian clerical functions **5** *a or* **minister-general** : the superior of one of several religious orders **b** : the assistant to the rector or the bursar of a Jesuit house **6** : a high officer of state entrusted by the chief of state or the executive head of a government with the management of a division of governmental activities ⟨British . . . ~*s* who exercise the powers of government derive their formal authority from the king —J.A.Corry⟩ ⟨Canadian . . . ~*s* carry the political responsibility for their departments —Alexander Brady⟩ — see FOREIGN MINISTER, PRIME MINISTER; compare COMMISSAR 2 **7 a** : a diplomatic representative (as an ambassador) accredited by a sovereign or government to the court or seat of government of a foreign state ⟨shall appoint ambassadors, other public ~*s* and consuls —*U.S.Constitution*⟩ **b** : a diplomatic representative ranking below an ambassador and usu. accredited to states of less importance ⟨send ambassadors to most countries and ~*s* to the less important ones —F.A.Magruder⟩ — compare MINISTER PLENIPOTENTIARY, MINISTER RESIDENT

²minister \"\ *vb* **ministered; ministering** \-t(ə)riŋ\ **ministers** [ME *ministren*, fr. MF *ministrer*, fr. L *ministrare* to serve, dish up, fr. *minister* servant] *vi* **1** : to serve or officiate in worship ; act in the capacity of or perform the functions of a minister of religion — often used with *to* ⟨became rector of a small parish where he ~*ed* for several years⟩ ⟨after a rabbi has ~*ed* to a congregation for . . . fifteen years —B.Z.Bokser⟩ **2** : to attend to the wants and comforts of someone : give aid : SERVE — usu. used with *to* ⟨happily he . . . had ~*ed* to this man —Louis Auchincloss⟩ ⟨during the plague he ~*ed* to the sick⟩ **3** : to do things needful or helpful ; be serviceable or conducive — usu. used with *to* ⟨a tract for the times . . . ~*ed* to the needs of the moment —R.W.Southern⟩ ⟨this conclusion ~*ed* to complacency —R.H.Bainton⟩ ~ *vt* **1** *archaic* : FURNISH, SUPPLY, AFFORD ⟨limbs . . . made to ~ delight —F.J.Bailey⟩ ⟨neither give heed to fables . . . which ~ questions —1 Tim 1:4 (AV)⟩ **2** *archaic* : ADMINISTER, DISPENSE ⟨I thither went to ~ the sacrament —John Wilson †1854⟩ ⟨that he might ~ the Gospel to the Gentiles —R.M. Benson⟩

³min·is·te·ri·al \,minə'stirēəl, -tēr-\ *adj* [LL *ministerialis*, lit., that functions as a servant, fr. L *ministerium* service (fr. *minister* servant) + *-alis* -al] **1 a** : of, being, or having the characteristics of a minister of religion ⟨those serving in a ~ capacity are trained in a Bible training school —F.S.Mead⟩ ⟨a ~ habit of mind —M.A.D.Howe⟩ **b** : of, relating to, or preparing to enter the clerical ministry ⟨examine ~ candidates —J.C.Brauer⟩ ⟨a code of ~ ethics —P.H.Furfey⟩ **2 a** : of, being, or having the characteristics of an act or duty belonging to the administration of the executive function in government and specifically prescribed by law as part of the official duties of an office **b** : of, relating to, or being an act that a person performs in obedience to a mandate of legal authority without the exercise of personal judgment upon the propriety of the act and usu. without discretion in its performance — opposed to *judicial* ⟨action by public officials can be compelled only if the act is a purely ~ one —B.F.Tucker⟩ ⟨the controversy turns . . . on whether the function is discretionary or ~ —G.W. Folts⟩ **3** : acting or active as an agent, instrument, or means ; INSTRUMENTAL ⟨those uses of conversation which are ~ to intellectual culture —Thomas De Quincey⟩ **4** : of, relating to, or having the status of a governmental minister ⟨representatives of the political parties . . . were given ~ posts —W.S. Vucinich⟩ ⟨jobs below the ~ level —H.M.Somers⟩ ⟨promotion . . . to the office of paymaster general, a ~ appointment —*Current Biog.*⟩ **b** *often cap* : of, relating to, or supporting the ministry as opposed to the opposition in a parliamentary system ⟨the situation was solved by a *Ministerial* crisis —*Peace Handbooks*⟩ ⟨~ benches in the House of Commons⟩ ⟨the principle of ~ responsibility under a parliamentary system —Taylor Cole⟩

⁴ministerial \"\ *n* -S [LL *ministerialis* imperial household officer, fr. *ministerialis*, adj.] : an administrative household officer under the feudal system

min·is·te·ri·al·ist \,minə'stirēələst\ *n* -S : a supporter of the ministry in office ⟨enrolled himself . . . in the ranks of the ~s —G.O.Trevelyan⟩

min·is·te·ri·al·ly \,minə'stirēəlē\ *adv* : in the manner or capacity of a minister ⟨called on to visit ~ one . . . lying on his deathbed —C.A.Johns⟩ ⟨acting judicially and ~ —*Law Times*⟩

min·is·te·ri·um \,minə'stirēəm\ *n* -S [G, fr. L, service] **1** : a body in the Lutheran Church: **a** : one composed of ordained ministers and charged with the examination, licensure, and ordination of candidates for the ministry and with the trial for heresy of ministers and also laymen on appeal from a church council **b** : a representative body of ministers and laymen meeting periodically to attend to the interests of the churches represented **2** : a regional group or association of ministers in the Evangelical and Reformed Church meeting periodically for fellowship and attending to problems of common interest

minister of music : a director of music in a church or synagogue usu. responsible for training the choir and often for service as an organist

minister of state *n, pl* **ministers of state** : a British governmental official having a status between a minister and a mental official having a status between a minister and a parliamentary secretary and usu. appointed to relieve a minister of portions of his departmental work ⟨promoted *Minister of State* at the Foreign Office —Herbert Morrison⟩

minister plenipotentiary *n, pl* **ministers plenipotentiary** : a principal diplomatic agent ranking below an ambassador but service as an organist

minister of state *n, pl* **ministers of state** : a British governmental official having a status between a minister and a mental official having a status between a minister and a parliamentary secretary and usu. appointed to relieve a minister of portions of his departmental work ⟨promoted *Minister of State* at the Foreign Office —Herbert Morrison⟩

minister plenipotentiary *n, pl* **ministers plenipotentiary** : a principal diplomatic agent ranking below an ambassador but principal diplomatic agent ranking below an ambassador but possessing full power and authority as the representative of his government at a foreign court or seat of government — see ENVOY 1a; compare MINISTER 7b

minister-president \'ˌ=ˌ=ˌ=(ə)=\ *n, pl* **ministers-president** *or* **minister-presidents** [trans. of G *ministerpräsident*] : the principal governmental minister usu. chosen by the legislature in a number of German länder and resembling a prime minister in power and status ⟨the *minister-president* . . . appoints and heads a cabinet responsible to the legislature —R.H.Wells⟩

minister resident *n, pl* **ministers resident 1** : a diplomatic agent resident at a foreign court or seat of government and ranking below a minister plenipotentiary — compare MINISTER 7b **2** : a member of the British ministry appointed to reside and handle special governmental functions in a location outside the United Kingdom ⟨a *minister resident* in West Africa was appointed to coordinate the war effort of the four dependencies —Martin Wight⟩

ministers *pl of* MINISTER, *pres 3d sing of* MINISTER

minister's face *n, dial* : the upper half of a hog's head with jowls, eyes, and usu. ears and nose removed

min·is·ter·ship \'minəstə(r),ship\ *n* : the office of minister

minister without portfolio *n, pl* **ministers without portfolios** : a member of a ministry to whom no special department is assigned

min·is·tra·ble \'minəstrəbəl\ *n* -S [F, fr. *ministrable* suitable for appointment as a cabinet minister, fr. *ministre* minister + *-able*] : a recurrent member of successive ministries ⟨the ~s were usually seasoned parliamentarians⟩

¹min·is·trant \'minəstrənt\ *adj* [L *ministrant-*, *ministrans*, pres. part. of *ministrare* to serve, dish up — more at MINISTER] : performing service as a minister ⟨the angels ~ sang —Bayard Taylor⟩

²ministrant \"\ *n* -S : one that ministers ⟨orgies of dissipation . . . were ~*s* to the clear, springing life of the imagination . . . were ~*s* to the clear, springing life of the imagination . . . were ~*s* to the clear, springing life of the imagination —Rose Macaulay⟩ ⟨~*s* at the altar —*Liverpool Daily Post*⟩

min·is·tra·tion \,minə'strāshən\ *n* -S [ME *ministracioun*, fr. L *ministration-*, *ministratio*, fr. *ministratus* (past part. of *ministrare* to serve, dish up) + *-ion-*, *-io* -ion] **1** : the action of giving aid, service, or comfort ⟨under the tender ~*s* of this fair sister of mercy, the young warrior revived —Cedomilj Mijatovic⟩ **2** : the action of ministering in religious matters : MINISTRY 2 ⟨all the baptized were to come under the disciplinary ~*s* of the Church —K.S.Latourette⟩ ⟨worshiping . . . under the ~*s* of a missionary —*Amer. Anthropologist*⟩

min·is·tress \'minəstrəs\ *n* -ES [MF *ministresse*, fr. *ministre* minister + *-esse* -ess] : a female minister ⟨come . . . to be ~ at London —Thomas Gray⟩ ⟨the lovely ~ of truth and good in this dark world —Mark Akenside⟩

min·is·try \'minəstrē, -ri\ *n* -ES [ME *ministerie*, fr. L *ministerium* service, fr. *minister* servant — more at MINISTER] **1** : the action of ministering : the performance of any service or function for another : MINISTRATION ⟨the ~ of books is at least threefold —T.V.Smith⟩ ⟨the ingenuity of destruction . . . had outrun the ~ of healing —Dixon Wecter⟩ ⟨the Gospels . . . become part of the present saving ~ of the Redeemer —H.H. Farmer⟩ **2** : the office, duties, or functions of a minister of religion ⟨prepared for the ~ —A.E.Bailey⟩ ⟨the true missionary is . . . occupied with the vital aspects of his ~ —E.A. Nida⟩ ⟨answered the call to the ~ —Wayne Hooper⟩ **3** *obs* : a specific kind of service : FUNCTION, OFFICE ⟨to speak wheat from the tares . . . must be the angel's ~ —John Milton⟩ **4** : the body of ordained ministers of religion : CLERGY ⟨insistence on a highly trained ~ —R.T.Handy⟩ **5** : a person or thing through which something is accomplished : AGENCY 2, INSTRUMENTALITY ⟨heroic believers become such by the ~ of heroic pains —Austin Phelps⟩ **6 a** : the period of service of a minister of religion **b** : the total life of service of a religious figure ⟨an outline account of the ~ of our Lord —*Times Lit. Supp.*⟩ **7** *often cap* **a** (1) : the whole body of ministers entrusted with the government of a nation or state and from which a smaller cabinet is sometimes selected ⟨when a cabinet goes out of office, it . . . carries the entire ~ with it —F.A.Ogg & Harold Zink⟩ ⟨the crown is the supreme executive . . . in all the dominions but it acts on the advice of different *ministries* —Robert Borden⟩ ⟨a responsible ~⟩ (2) : the usu. smaller group of ministers constituting a cabinet **b** : the whole body of ministers or the cabinet currently holding office **8 a** : a government department presided over by a minister ⟨*ministries* of justice have been the spearhead in promoting the recurrent great codifications of Continental law —C.J.Friedrich⟩ ⟨the Communists received the three *ministries* they . . . wanted —W.S.Vucinich⟩ ⟨~ of foreign affairs⟩ ⟨~ of transport⟩ **b** : the building in which the business of a ministry is transacted ⟨whether he had noticed any other member . . . entering the ~ —C.D.Lewis⟩ **9** : the term of office held by an individual minister or by a body of ministers ⟨the Tory ~ lasted for fifteen years⟩

minitari *var of* MINNETAREE

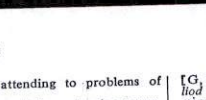
min·i·track \'minə,trak\ *n, sometimes cap* [*miniature* + *track*] : an electronic system for tracking an earth satellite or rocket by radio waves transmitted from it to a chain of ground stations

min·i·um \'minēəm\ *n* -S [ME, fr. L, cinnabar, red lead, of Iberian origin; akin to Basque *arminea* cinnabar] **1 a** : GOYA **b** : FIERY RED **2 a** : red lead oxide Pb_3O_4 sometimes found as a mineral but usu. prepared synthetically; tri-lead tetroxide **b** : RED LEAD

min·i·ver *also* **min·e·ver** \'minəvə(r)\ *n* -S [ME *meniver*, fr. OF *menu vair*, fr. *menu* small (fr. L *minutus*) + *vair* — more at MINUTE, VAIR] **1** : a white or whitish fur probably from the vair and more recently from ermine or rabbit used in the medieval period esp. for the clothing of nobles and for state robes and now chiefly for robes of state ⟨parliament robes are of crimson cloth furred with ~ —Dorothy M. Stuart⟩ **2** *dial Eng* : an ermine in its white winter coat

min·i·vet \'minə,vet\ *n* -S [origin unknown] : any of several cuckoo shrikes that belong to the Asiatic genus *Pericrocotus* and that are brilliantly colored with the males chiefly black and scarlet and the females usu. gray and yellow

mink \'miŋk\ *n, pl* **mink** *or* **minks** *often attrib* [ME *mynk*] **1 a** : the fur or pelt of the mink varying in color from white to dark brown ⟨an elbow-length cape of ceruleau and ~ —*New Yorker*⟩ **b** : an article of clothing (as a coat) made of this fur ⟨the girl was wearing a ~ —Eric Greywood⟩ **2** : any of several slender-bodied semi-aquatic carnivorous mammals that resemble and are closely related to the weasels, comprise a subgenus of *Mustela*, and have partially webbed feet, a thick soft usu. dark brown coat, and a rather short bushy tail



mink

mink·erly \'kərlē\ *n* -ES : a place where minks are bred usu. for commercial purposes

mink frog *n* : a black-spotted frog (*Rana septentrionalis*) of the northern U. S. having a strong musky odor

minkopi *usu cap, var of* MINCOPIE

minn *var of* MIND

min·ne·ap·o·lis \,minē'ap(ə)ləs\ *adj, usu cap* [fr. *Minneapolis*, city in southeast central Minnesota] : of or from Minneapolis, Minn. ⟨*Minneapolis* mills⟩ : of the kind or style prevalent in Minneapolis

min·ne·a·pol·i·tan \,minē'ə fr. or

min·ne·a·pol·ite \,minē'ə resident of Minneapolis, Mi

min·ne·lied \'minəˌlēt\ *n, p*

[G, fr. MHG *minnelīet*, fr. *minne* love + *liet* song, fr. OHG *liod* — more at LAUD] **1** : a song of or in the style of the minnesingers **2** : LOVE SONG

min·ne·sing·er \'minēˌsiŋə(r), -nəˌ-\ *also* **min·ne·säng·er** \'minəˌzeŋ-\ *n, pl* **minnesingers** *also* **minnesänger** [G, fr. MHG *minnesinger*, *minnesenger*, fr. *minne* love (fr. OHG *minna*) + *singer* (fr. *singen* to sing — fr. OHG *singan* — + *-er*, fr. OHG *-ārī* -er) or *senger* singer, fr. *sanc* song, singing (fr. OHG *sang*) + *-er* — more at MINIKIN, SING, SONG] : one of a class of aristocratic German lyric poets and musicians of the 12th to the 14th centuries inspired by the French troubadors and characterized by having love and beauty as the subject of their songs — compare MEISTERSINGER

min·ne·song \'minēˌsȯŋ, -nəˌ-, -sāŋ\ *or* **min·ne·sang** \'minəˌzäŋ\ *n* [in sense 1, *minnesong* part trans. of G *minnelied*; in sense 1, *minnesang* alter. (influenced by G *minnesang*) of sense 1, *minnesang* alter. (influenced by G *minnesang*) of *minnesong*; in sense 2, *minnesong* part trans. of G *minnesang*; in sense 2, *minnesang* fr. G, fr. MHG *minnesanc*, fr. *minne* love + *sanc* song, singing] **1** : a song of a minnesinger **2** : the whole body of minnesongs constituting a musical form ⟨another characteristic shared in common by English music and German ~ —Gilbert Reaney⟩

¹min·ne·so·ta \'minəˌsōd-ə, -ōtə\ *adj, usu cap* [fr. *Minnesota*, state in the north central U. S., fr. *Minnesota* river, southern Minnesota, fr. Dakota *minisota* white water] : of or from the state of Minnesota ⟨a *Minnesota* lake⟩ : of the kind or style prevalent in Minnesota : MINNESOTAN

²minnesota \"\ *n -s usu cap* : either of two breeds of swine developed in Minnesota: **a** *or* **minnesota number one** *usu cap M&N&O* : a breed of red meat type swine developed by selection from crosses between Tamworths and Danish Landrace **b** *or* **minnesota number two** *usu cap M&N&T* : a breed of white black-spotted swine similarly developed from Large Whites and Poland Chinas

min·ne·so·ta·ite \ˌ=ˌ=ˈsōd-əˌīt\ *n* -S [*Minnesota* (state) + E *-ite*] : a hydrous silicate of iron $Fe_3Si_4O_{10}(OH)_2$ probably isomorphous with talc

¹min·ne·so·tan \,minəˈsōtᵊn\ *also* **min·ne·so·ti·an** \-ōd-ēən\ *n -s cap* [*Minnesota* (state) + E *-an*, n. suffix] : a native or resident of the state of Minnesota

²minnesotan \ˌ=ˌ=ˈ=ˌ= *also* **minnesotian** \ˌ=ˌ=ˈ=ˌ= *adj, usu cap* [*Minnesota* (state) + E *-an*, adj. suffix] **1** : of, relating to, or characteristic of the state of Minnesota **2** : of, relating to, or characteristic of the people of Minnesota

min·ne·ta·ree \,minəˈtārē\ *n -s usu cap* [Mandan *minitari* they crossed the water] : HIDATSA

min·ni \'minē\ *n, pl* **minni** *or* **minnis** *usu cap* **1** : a primitive Mongol people inhabiting the foothill region of the southern Caucasus during pre-Babylonian times — compare KASSITE **2** : a member of the Minni people

¹min·nie *or* **min·ny** \'minē\ *n, pl* **minnies** [prob. baby-talk alter. of *mother*] *chiefly Scot* : MOTHER — a childish or informal term

²min·nie \'minē\ *n -s* [by shortening & alter. fr. *¹minimum*] **1** : a hand barely strong enough for an opening bid in bridge **2** : the lowest possible hand that wins in lowball or high-low poker

min·nie·bush \'minēˌbůsh\ *n* [*minnie-* (irreg. fr. Archibald *Menzies* †1842 Scot. botanist) + *bush*] : a low shrub (*Menziesia pilosa*) of eastern No. America with greenish purple flowers

min·now \'miⁿ(ˌ)nō, -nəˌ\ *n, pl* **minnows** *also* **minnow** *often attrib* [ME *menawe*; akin to OE *myne* minnow, OHG *munewa*, a fish, Russ *men'* eelpout, and perh. to Gk *manos* sparse — more at MONK] **1** : a small European cyprinid fish (*Phoxinus phoxinus*) common in gravelly streams and attaining a length of about three inches maximum; *broadly* : any of the usu. small fishes constituting the family Cyprinidae **b** : a small killifish or topminnow — see MUDMINNOW **c** : a fish of the family Galaxiidae **2** : a young fish not specified as sport fish or game fish esp. in game laws **3** : a small or insignificant person or thing **4** : a live or artificial minnow used as bait in fishing — see LURE illustration

min·ny \'minē\ *n* -ES [by alter.] *dial* : MINNOW

¹mi·no·an \mə'nōən, -'miˌnō-\ *adj, usu cap* [L *minous* Cretan, of Minos (fr. Gk *minōios*, fr. *Minōs* Minos, legendary king of Crete) + E *-an*] **1** : of or relating to the Bronze Age culture of Crete (3000 B.C.–1100 B.C.) and being in its latest phase virtually identical with Mycenaean — compare AEGEAN, CYCLADIC, ETEOCRETAN, HELLADIC **2 a** : of, relating to, or having the language of ancient Crete **b** : of or relating to inscriptions and documents in the Minoan language or to the hieroglyphic and esp. the linear script in which they were written — compare JAPHETIC

²minoan \"\ *n -s usu cap* **1** : a native or inhabitant of ancient Crete **2** : the language of the ancient Cretan civilization — compare ETEOCRETAN, MYCENAEAN

mi·no bird \'miˌ(ˌ)nō-\ *n* [*mino* alter. of *myna*] : MYNA

mi·nom·e·ter \mə'nämədə(r), miˈ-\ *n* [*¹minute* + *-o-* + *-meter*] : an instrument for the detection and measurement of stray radiations from X-ray generators and radioactive materials

¹mi·nor \'minə(r)\ *n -s* [in sense 1, fr. ME, fr. L *minor*, adj.; in sense 2, fr. LL, fr. L *minor*, adj.; in other senses, fr. *²minor*] **1 a** : the premise in logic that contains the minor term: (1) : the second proposition of a regular syllogism (2) : the categorical premise in a hypothetical syllogism **b** : MINOR TERM **2 a** : a person of either sex under full age or majority ; one who has not attained the age at which full civil rights are accorded ; one who in England and generally in the U.S. is under 21 years of age — compare INFANT 1d(2), INFANT **b** : a person in Scots law who has exceeded the age of pupillarity by being over 14 if a boy or over 12 if a girl but who has not attained the majority age of 21 years **3** : a minor musical interval, scale, key, or mode ⟨listened . . . to the pulsating sweet ~*s* of the hymns —Irwin Shaw⟩ **4** *or* **minor determinant** : a mathematical determinant obtained by deleting the same number of rows and columns from the given determinant **5 a** : a minor academic course **b** : a minor academic subject ⟨degree in history with a ~ in school administration —*Current Biog.*⟩ **6** : MINOR LEAGUE — usu. used in pl. with *the* ⟨an old pitcher retired to the ~*s* —Vincent McHugh⟩ **7** : MINOR SUIT

²minor \"\ *adj* [ME, fr. L, smaller, less, inferior; akin to OHG *minniro* smaller, ON *minnr* smaller, Goth *minniza* least, younger, inferior, L *minuere* to lessen, Gk *meiōn* less, Skt *mināti* he lessens] **1 a** : inferior in importance ; comparatively unimportant ; lower in standing or reputation than others of the same kind ⟨these hardy adventurers were ~ noblemen —R.A.Billington⟩ ⟨~ back roads which serve as bridle paths —*Amer. Guide Series: Mass.*⟩ ⟨a ~ poet⟩ **b** : being the less important of two things ⟨a ~ canon⟩ ⟨a ~ piece in chess⟩ **2** : having the status of a legal minor not having reached the age of majority or full legal age ⟨~ children follow the nationality of the parents —William Samore⟩ **3** *archaic* : being in or constituting a numerical minority ⟨another person had the ~ vote in the election —Thomas Hutchinson⟩ **4 a** (1) *of a scale* : having half steps between the second and third, fifth and sixth, and sometimes seventh and eighth degrees — see HARMONIC MINOR SCALE, MELODIC MINOR SCALE, NATURAL MINOR SCALE (2) *of a key* : based (as in harmonic relations) on such a scale — opposed to *major*; used after the name of a keynote ⟨fugue in D ~⟩ (in the key of B ~) **b** *of an interval* (1) : less by a half step than the corresponding major interval ; of a size equal to the distance between the keynote and a (specified) degree of the minor scale — used of the second, third, sixth, and seventh (2) : less by a comma — used of one whole step in an untempered scale compared with another (D to E is a ~ whole step, smaller by a comma than C to D) **c** *of a mode in measurable music* ; having the long divided into breves **5** : being the second in age or school standing of two or more boys with the same surname in an English public school ⟨Smith ~⟩ **6** *med* ; not serious or involving risk to life ⟨a ~ illness⟩ ⟨a ~ operation⟩ — compare MAJOR **7** ; of, relating to, or being a branch of the judiciary having jurisdiction limited to a specified local area and to cases having minor importance ⟨~ courts . . . deal usu. involving matters of lesser importance ⟨~ courts . . . deal with such cases as breaches of the traffic laws, petty theft, and minor domestic cases —*Canadian Citizenship Series*⟩ **8 a** : of, relating to, or being an academic course usu. having fewer class hours than a major course **b** : of, relating to, or being an

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Tony Brown	anthonyjbrown@comcast.net	PO Box 10025 Baldwin MD 21013		
Megan Billingsley	megan@thevpc.org	118 W. Pennsylvania Ave. Towson, 21204		
Ann H. Jones	annholmesjones@gmail.com	2921 Greenwig Dr. Ellicott City MD 21042		
~~REB~~ SCARONE		20220 MIDDLETOWN RD FREELAND		
Paul Catterton	paulrcatterton@MSN.com	14727 Green Rd Baldwin MD 21013		

Board of Appeals of Baltimore County

JEFFERSON BUILDING
SECOND FLOOR, SUITE 203
105 WEST CHESAPEAKE AVENUE
TOWSON, MARYLAND, 21204
410-887-3180
FAX: 410-887-3182

October 24, 2018

NOTICE OF ASSIGNMENT

IN THE MATTER OF: Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
18-194-X 632 Freeland Road
7th Election District; 3rd Councilmanic District

Re: Petition for Special Exception pursuant to the BCZR Section 4E-102 for a solar facility on property zoned RC-2.

4/3/18 Opinion and Order of the Administrative Law Judge wherein the Petition for Special Exception was GRANTED, subject to conditions.

ASSIGNED FOR: **NOVEMBER 27, 2018, AT 9:00 A.M. – Day 4**
JANUARY 15, 2018, AT 9:00 A.M. – Day 5

LOCATION: Hearing Room #2, Second Floor, Suite 206
Jefferson Building, 105 W. Chesapeake Avenue, Towson

NOTICE:

- This appeal is an evidentiary hearing. Parties should consider the advisability of retaining an attorney.
- Please refer to the Board's Rules of Practice & Procedure, Appendix B, Baltimore County Code.
- No postponements will be granted without sufficient reasons; said requests must be in writing and in compliance with Rule 2(b) of the Board's Rules. No postponements will be granted within 15 days of scheduled hearing date unless in full compliance with Rule 2(c).
- If you have a disability requiring special accommodations, please contact this office at least one week prior to hearing date.
- Parties must file one (1) original and three (3) copies of all Motions, Memoranda, and exhibits (including video and PowerPoint) with the Board unless otherwise requested.
- Projection equipment for digital exhibits is available by request. A minimum of forty-eight (48) hours-notice is required. Supply is limited and not guaranteed.

For further information, including our inclement weather policy, please visit our website www.baltimorecountymd.gov/Agencies/appeals/index.html

Krysundra "Sunny" Cannington
Administrator

c:	Counsel for Petitioner/Legal Owner	: Adam M. Rosenblatt, Esquire
	Petitioner/Legal Owner	: Charles Atkinson and Stephen Atkinson
	Lessee	: OneEnergy Development, LLC
	Counsel for Protestants	: H. Barnes Mowell, Esquire
	Protestants	: Freeland Legacy Alliance, Inc, Bobby Rohe, Don and Nadine Lentz, John Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore
	People's Counsel for Baltimore County	: Peter M. Zimmerman, Esquire

Andrea Van Arsdale, Director/Department of Planning
Arnold Jablon, Director/PAI
Lawrence M. Stahl, Managing Administrative Law Judge
Michael Field, County Attorney, Office of Law
Nancy West, Assistant County Attorney

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Monday, October 01, 2018 10:37 AM
To: Krysundra Cannington; Malone, Patsy; Adam Rosenblatt Esquire; barney Mowell
Subject: RE: Atkinson Hearings

Sunny,

Our office is currently available for any of these dates.

Thank you for your consideration.

Rebecca M. Wheatley, Legal Secretary
People's Counsel for Baltimore County
105 West Chesapeake Avenue, Suite 204
Towson, Maryland 21204
(410) 887-2189 Direct Dial
(410) 887-2188 Office
(410) 823-4236 Fax

From: Krysundra Cannington
Sent: Wednesday, September 26, 2018 9:16 AM
To: Malone, Patsy <pamalone@venable.com>; Adam Rosenblatt Esquire <amrosenblatt@Venable.com>; barney Mowell <barneymowell@hotmail.com>; Peter Max Zimmerman <pzimmerman@baltimorecountymd.gov>
Cc: Peoples Counsel <peoplescounsel@baltimorecountymd.gov>
Subject: Atkinson Hearings

Counsel,

Thank you for your understanding yesterday. As you know we have another hearing date scheduled in this matter on October 9, 2018 at 10:00 a.m.

In an effort to reschedule yesterday's hearing date, I can offer the following dates/times: October 30, 2018 at 11:00 a.m.; November 27, 2018 at 9:00 a.m. or 10:00 a.m.; or January 15, 2018 at 9:00 a.m. or 10 a.m.

I kindly ask that when you advise as to your availability, please provide any documentation for any reason you are not available.

Thank you for your prompt attention to this matter.

Sunny

Krysundra "Sunny" Cannington
Administrator
Board of Appeals of Baltimore County
410-887-3180

Krysundra Cannington

From: barney Mowell <barneymowell@hotmail.com>
Sent: Monday, October 01, 2018 10:58 AM
To: Peter Max Zimmerman; Krysundra Cannington; Malone, Patsy; Adam Rosenblatt Esquire
Subject: Re: Atkinson Hearings
Attachments: 632freeoctdate.pdf

Ms. Cannington: I have heard from witness Lynne Jones that she is unavailable for the October 30th date. As shown on the attached, I am also unavailable, as I am scheduled to start a trial in the Circuit Court for Howard County on October 30th. I am available on November 27th and January 15th. I haven't heard from any of our other witnesses that they have a conflict with any of the dates. thanks, Barney Mowell

---

From: Peter Max Zimmerman <pzimmerman@baltimorecountymd.gov>
Sent: Monday, October 1, 2018 10:37 AM
To: Krysundra Cannington; Malone, Patsy; Adam Rosenblatt Esquire; barney Mowell
Subject: RE: Atkinson Hearings

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Thank you for your consideration.

Rebecca M. Wheatley, Legal Secretary
People's Counsel for Baltimore County
105 West Chesapeake Avenue, Suite 204
Towson, Maryland 21204
(410) 887-2189 Direct Dial
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I kindly ask that when you advise as to your availability, please provide any documentation for any reason you are not available.

IN RE: PETITION FOR SPECIAL EXCEPTION	*	**BEFORE THE**
	*	**BOARD OF APPEALS**
(632 Freeland Road)	*	**FOR BALTIMORE COUNTY**
7th Election District **3rd Council District**	*	
OneEnergy Development, LLC ***Petitioners***	*	**Case No. 2018-194-X**
	*	
Charles and Steven Atkinson ***Legal Owners***	*	
	*	

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BOARD OF APPEALS

* *

RESPONSE TO MOTION
OF PEOPLE'S COUNSEL

Petitioner OneEnergy Development, LLC ("Petitioner"), by undersigned counsel, hereby responds to the Motion filed by People's Counsel and states as follows:

INTRODUCTION

After two full days of hearing and less than two weeks before this case is set to resume for a third day, Mr. Zimmerman has filed a Motion, seeking to introduce two expert reports without presenting live witnesses to the Board. This effort, mid-hearing, is highly unusual, prejudicial to the Petitioner, and contrary to law. It also calls into question the role of People's Counsel and reveals just how far Mr. Zimmerman will apparently go to fight a use that the County Council has deemed to be a permissible use by special exception in the RC 2 zone. Even though Protestants have hired their own attorney to contest the proposed solar facility, Mr. Zimmerman has taken substantially more time than Protestants' counsel to present his case.

Due to Mr. Zimmerman's involvement, there is no end in sight to this proceeding. The witness list is ever-changing, and the case has been repeatedly side-tracked by off-topic efforts, such as a lengthy examination of corporate documents and the filing of this Motion. In an effort to expedite the proceedings, Petitioner will agree to some of Mr. Zimmerman's assertions as detailed b

ARGUMENT

r. Brewer's Report and Petitioner's Exhibit 21 should be accepted into evidence.

Despite repeated negative rulings by the Board, Mr. Zimmerman continued to try to oduce his Exhibits 9 and 10 into evidence without proper authentication. In an effort provide hat authentication, he now presents a letter from James Brewer, a USDA employee. As outlined in this Response, Petitioner withdraws its objection to People's Counsel's Exhibits 9 and 10.

Petitioner agrees that having Mr. Brewer testify at the hearing would not be a productive use of time as it is clear he is only confirming that the USDA database is the proper avenue to identify soil types on properties in Baltimore County. Assuming the Board accepts Mr. Brewer's report, Petitioner ask that the attached Exhibit, which is marked as Petitioner's Exhib 21, also be accepted into evidence without the need to call Mr. Brewer (or other corrobora witness) as a witness.

Using the very same USDA database identified by Mr. Brewer, Petitioner has p an exhibit that highlights the various soils on properties in northern Baltimore Count I-83 and Middletown Road, including the subject property. In his report, Mr. Bre on several "prime and productive" soil types contained on the "northern half of

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Petitioner has used the very same database to identify how many acres of property located between Middletown Road and I-83 in northern Baltimore County have these soil types:

- GdA (761.3 acres)
- GdB (2,098.3 acres)
- GdC (1,814.2 acres)
- GeC (1,743 acres)
- GhB (895.3 acres)

Petitioner recognizes that this area is only a portion of the total acreage in Baltimore County that contains these soils.

The parties obviously disagree on the relevance and importance of what soil types are located on the property. However, Petitioner's Exhibit 21 demonstrates how prevalent these soils are in this portion of northern Baltimore County. As reflected on Petitioner's Exhibit 1A/1B, the acreage within the special exception area that is fenced is approximately 15 acres in size. This acreage is a small fraction of the thousands of acres of "prime and productive" soils present throughout the area as reflected on Petitioner's Exhibit 21.

II. Mr. Dillon's letter should not be accepted into evidence.

While administrative proceedings do allow more "flexible" evidentiary guidelines, Maryland courts have established some boundaries to this flexibility. *Kade v. Charles H. Hickey Sch.*, 80 Md. App. 721, 725 (1989). The Court of Appeals has stated that:

> [W]hile administrative agencies are not bound to observe the "technical common law rules of evidence," they are not prevented from doing so as long as the evidentiary rules are not applied in an arbitrary or oppressive manner that deprives a party of his right to a fair hearing.

Department of Public Safety v. Scruggs, 79 Md. App. 312, 321-22 (1989).

Administrative agencies must observe the basic rules of fairness as to parties appearing before them. *Dal Maso v. Bd. of Co. Comm'rs*, 238 Md. 333, 337 (1965); *Tron v. Prince George's County*, 69 Md. App. 256, 262 (1986). As a general guideline as to what evidence can

be "fairly" admitted under the relaxed standards of administrative proceedings, Maryland Courts have used § 10-208(b) of the Maryland State Government Article, which states as follows:

> (b) *Probative evidence.* -- The agency may admit probative evidence that reasonable and prudent individuals commonly accept in the conduct of their affairs and give probative effect to that evidence.

Under the circumstances of the instant case, Mr. Dillon's report should not be admitted into evidence, and he should be forced to testify if Mr. Zimmerman wishes to elicit his opinion and have that evidence be part of the record of this case. Unlike Mr. Brewer, Mr. Dillon is not objectively providing information for the Board, he is expressing his personal opinion about the potential impact of the solar facility. Petitioner deserves the right to cross examine Mr. Dillon as to his expertise, the basis of his opinions, and any bias that impacts the credibility of his statements. Simply accepting his statements as true would violate the case law cited herein and greatly prejudice Petitioner.

CONCLUSION

For the reasons stated herein, Petitioner respectfully request that: (1) People's Counsel Exhibits 9 and 10 be accepted into evidence; Mr. Brewer's letter be admitted for the purpose of authenticating People's Counsel Exhibits 9 and 10; and Petitioner's Exhibit 21 be admitted in response to Mr. Brewer's letter; and (2) Mr. Dillon's report be stricken from the record unless and until he appears to testify in support of his conclusions.

Respectfully submitted,

Patricia A. Malone
Adam M. Rosenblatt
Venable, LLP
210 W. Pennsylvania Avenue, Ste. 500
Towson, MD 21204
(410) 494-6825
pamalone@venable.com
amrosenblatt@venable.com

CERTIFICATE OF SERVICE

I hereby certify on this 4th day of October, 2018 that a copy of the foregoing pleading was mailed to: People's Counsel for Baltimore County, 105 West Chesapeake Avenue, Suite 204, Towson, Maryland 21204 and H. Barnes Mowell, 16925 York Road, Monkton, MD 21111.

Adam M. Rosenblatt

RE: PETITION FOR SPECIAL EXCEPTION 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

PEOPLE'S COUNSEL FOR BALTIMORE COUNTY'S INTERIM MOTION/SUBMISSION TO ADMIT EVIDENCE AND MEMORANDUM CONCERNING EVIDENCE LAW AND ISSUES

People's Counsel for Baltimore County submits this memorandum:

1. It appears to this office timely and expeditious to present, in advance of the October 9 scheduled hearing, this combined motion/submission to reconsider admitting People's Counsel Exhibit 10 and to introduce new People's Counsel Exhibits 10A, 17, and 18. This provides other parties more time to review and respond, enables the County Board of Appeals (CBA) to give advance consideration, facilitates presentation of the legal issues, and probably will save time at the hearing.

2. As background, it appears helpful also to discuss briefly the law on evidence applicable generally to CBA proceedings and specifically to this case as it proceeds.

3. CBA Rule 7,"Evidence," attached, states, among other things,

   a. Any evidence admissible under the Maryland "general rules of evidence … shall be admissible in [CBA] hearings …"

   "Proceedings before the board being administrative in nature, the board will not be bound by the technical rules of evidence but will apply such rules to the end that needful and proper evidence shall be most conveniently, inexpensively and speedily produced while preserving the substantial rights of the parties. Any oral or documentary evidence may be received …"

   b. "Documentary evidence may be received in the form of copies or excerpts or by incorporation by reference."

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BOARD OF APPEALS

4. CBA Rule 7 is consistent with the flexible and lenient Maryland law generally applicable to administrative proceedings. As it is stated in 1 M.L.E., Administrative Law and Procedure Sec. 46,

> "Administrative agencies are subject to relaxed rules of evidence."

There is cited, among others, Bereano v. State Ethics Comm'n 403 Md. 716 (2008). As Judge Harrell there stated, 403 Md. at 750,

> "The rules of evidence are generally relaxed in administrative proceedings. [internal citations omitted]."

5. In this context, hearsay evidence is generally admissible in administrative proceedings where probative. Judge Harrell continued in Bereano, *supra*,, citing both the Maryland Code and regulations, he wrote,

> "The [Ethics Commission] hearing need not be conducted according to the technical rules of evidence, and any relevant evidence, including hearsay of probative value, is admissible."). The rules of evidence are so relaxed that the Maryland Code states that "[e]vidence may not be excluded solely on the basis that it is hearsay." § 10–213(c). In fact, an administrative agency's decision may be wholly supported by hearsay. *Md. Dep't of Human Res. v. Bo Peep Day Nursery,* 317 Md. 573, 595, 565 A.2d 1015, 1026 (1989)."

In this context, the above law is restated as the general law of Maryland in 1 M.L.E., Administrative Law, Sec. 48, citing Bereano (among other cases) and Md. Code State Government Article Sec. 10-213.

6. Given these relaxed rules of evidence, People's Counsel did not object to the hearsay written statements/opinions of Charles Gary Atkinson, the petitioner/property owner, Pet. Exh. 6; the Greater Baltimore Sierra Club, Pet. Exh. 7A; Baltimore 350, Pet. Exh. 7B; the Forge Solar Glare Analysis, Pet. Exh. 8; and the letter from James Herrmann, County Landscape Architect, Pet. Exh. 11. Nor did we object to serial hearsay testimony from David Martin about interactions by him or his colleagues with County departmental staff, including Department of Environment staff and Mr. Herrmann. However, we asked for reciprocal treatment.

7. Under these circumstances, the CBA and Maryland Rules support our office's introduction of evidence which we shall now describe, discuss and submit.

8. At the July 25th hearing, People's Counsel introduced Exhibits 9, the My Neighborhood soils map for 632 Freeland Road. This was admitted into evidence over Petitioners' objection. We also submitted as Exhibit 10, the United States Department of Agriculture website link with the definitions and descriptions of the soils shown on the Exhibit 9 soils map. The CBA declined to admit this evidence, even though we stated it was from the USDA website and there are references at the bottom of each page, albeit in small font, to the following sources:

> "USDA, Natural Resources Conservation Service.
> Web Soil Survey, National Cooperative Soil Survey"

9. Even though it should be apparent from the above language that we accurately described Exhibit 10 as USDA website documents, one of the Board members questioned the website source. Perhaps the small print was overlooked.

10. In any event, we are supplementing Exhibit 10 with additional Exhibit 10A, attached. These consist of the following:

> *** The USDA Web Soil Survey Area of Interest homepage:
> https://websoilsurvey.nrcs.usda.gov/WebSoilSurvey.aspx
>
> ***The Area of Interest address link from the above page, with 632 Freeland Road, Freeland, Maryland typed in the relevant box, linked to the same webpage address.
>
> ***The more detailed Area of Interest view link from the above page, showing 632 Freeland Road and the surrounding area, linked to the same webpage address. By clicking on the AOI icon, and then drawing a box around the property based on the My Neighborhood description.
>
> ***The soils map data link from the above webpage, identifying each of the soils at 632 Freeland Road.
>
> ***The soils definitions and descriptions of each of the 632 Freeland Road soils, again linked to the same website. These are Exhibit 10, which we submitted initially for economy, without the source links now submitted as Exhibit 10A.

To assist the CBA, we have marked in yellow magic marker the different linkages to progress from the WebSoilSurvey homepage to 632 Freeland Road, the soils map, and the definitions and descriptions.

10. It is also noteworthy that even under the Federal Rules of Evidence, government website documents are admissible in evidence. Williams v. Long 585 F. Supp. 2d 679, 690-91 (D. Md. 2008); Shantillo v. Aramark Healthcare Support Services 2011 WL 3651048 (D. Md. 2011); United States v. Denius 330 F.3d 919, 925-26 (7th Cir. 2003).

11. Separately, we submit as People's Counsel Exhibit 17 the attached September 25 letter from James Brewer, USDA NRCS (National Resources Conservation Service) Resource Soil Scientist. Mr. Brewer evaluates 632 Freeland Road :

*** He encloses the USDA-NRCS Official Soils map and report for the farm property

*** NRCS assists in the implementation of USDA Farmland Protection Policy Act of 1981 (FPPA).

*** He references Part 523.2B of FPPA Manual, which includes the role of responding to request for technical assistance from local governments, among other constituencies.

*** The FPPA does not directly regulate land use or affect property rights.

*** Lands subject to FPPA provisions are important farmlands, including lands identified with soils that are prime, unique or statewide or locally important farmland.

*** He provides his background, including, among other things:

* Bachelor's Degree from University of Maryland, Soil Science.
* Work with USDA Soil Conservation Service for over 40 years.
* Role to provide guidance to internal and external customers on interpretation and application of soil survey information relating to various specific concerns.
* Information and education activities relating to soils.
* Work with producers and landowners to providing technical expertise for USDA conservation programs.

*** **He confirms "People's Counsel Exhibit 10 reflects the regular USDA accurate definitions and descriptions of the soils found at 632 Freeland Road.** Emphasis supplied.

*** He concludes, emphasis supplied,

> **"The Glenelg soils found on site, specifically in the northern half the of (sic) site are considered Prime Farmland soils (GdA, GdB) and statewide importance soils (GdC, GeC). The Glenville soils are also classified as Prime Farmland soils (GhB). As stated in the report**

document (page 33) these soils are best suited to food, feed, fiber, forage, and oilseed crops. The Glenelg and Glenville soils have some of the highest ratings for crop productivity on the site (page 50)."

Mr. Brewer also encloses a 66-page Custom Soil Resource Report, including:

How Soil Surveys Are Made
Soil Map (632 Freeland Road Farm)
Legend
Map Unit Legend
Map Unit Descriptions (Each Soil Type Itemized)
Soil Information for All Uses,
Suitabilities and Limitations
Land Classifications
Soil Properties and Qualities
Soil Reports

This wonderful report includes helpful aerial maps and legends – that is to say: charts, tables, and breakdowns. These are provided for Soil Resource (9-12) and Farmland Classification (34-38), Hydric Ratings (41-44), National Commodity Crop Productivity (47-51), and Drainage Class (53-56). There are also the Baltimore County soil definitions and descriptions (15-32), the same as in People's Counsel Exhibit 10)

12. We submit further as People's Counsel Exhibit 18 the attached September 7, 2018 letter and report from County Planner John Dillon, retired. His expertise has been recognized by the CBA and the judiciary in appellate special exception cases, including Lucas v. People's Counsel 147 Md. App. 209, 239-40 (2002), special exception for helicopter operations in R.C. 2 Zone and People's Counsel v. Country Ridge Shopping Center 144 Md. App. 582, 590 (2002), special exception for pawnshop in B.L. Zone.

In Country Ridge, 144 Md. App. at 590, Judge Charles Moylan referred to,

> "John J. Dillon, a 29-year veteran of the Office of Planning and Zoning who had been 'accepted by the Board as an expert planner in Baltimore County."

As recited also in Mr. Dillon's report, Mr. Dillon was part of the Planning Office team which developed the Resource Conservation Zone maps and regulations for enactment and mapping by the County Council in 1975-76.

13. Mr. Dillon's report refers to his experience as senior planner on the team that prepared and drafted maps and regulations for the Resource Conservation Zones adopted

in 1976, per Bill 98-75. His report discusses the use of USDA soils map and identifies various soils at 632 Freeland Road, and includes these observations, emphasis supplied:

*** The USDA soils maps were critical to the formation of the RC 2 Zone.

*** **There are a finite amount of prime and productive soils in Baltimore County**

*** **When such soils are taken out of production for extended periods of time, it has a negative effect on the industry as a whole.**

*** **The RC 2 Legislative Findings recognize the fortunate endowment of productive soil types which not be lost unnecessarily to urbanized development and intend to foster conditions favorable to agricultural use and prevent incompatible urbanized uses.**

*** Agricultural Priority Preservation Areas are designated in the Master Plan and rated based on their capacity for agricultural production.

*** USDA soils maps are also used to rate farms for eligibility in the Maryland Agricultural Land Preservation Program

*** **Upon utilization and review of the USDA WebSoilSurvey website, Mr. Dillon confirms that People's Counsel Exhibits 9 and 10 are accurate. He provides additional information attached to his report.**

*** He confirms:

"This particular farm consists of predominantly prime and productive soils. Also, this farm is within the adopted Agricultural Priority Preservation Area."

*** He concludes,

"With regard to the request at hand it is obvious that the proposed location of the solar panels would cover a substantial portion of prime and productive soils and in my opinion is in direct contrast to the foundation of the purpose and intent of the R.C. 2 Zone and the Master Plan for Baltimore County."

Mr. Dillon also includes a Farmland Classification Map, Legend, and Table. These are consistent with Mr. Brewer's more detailed report.

14. Based on the relaxed rules of evidence, including the admissibility of hearsay evidence, Mr. Dillon's report is admissible.

15. Anyway, Petitioners have opened the door to the letters from Mr. Brewer and Mr. Dillon by their serial introduction of hearsay statements, reports and opinions described above. They have effectively waived any right to complain about hearsay statements and

reports. It would be a violation of procedural due process for the CBA to favor Petitioners with the admission of their multiple and serial hearsay evidence and exclude such evidence as may be submitted by People's Counsel and Protestants. This would be manifestly unfair, discriminatory, arbitrary, and capricious. Administrative agencies must observe the basic rules of fairness to satisfy procedural due process.

16. Furthermore, we are providing these reports and documentation prior to the hearings on scheduled on October 9 and subsequently so that Petitioners have an opportunity for review and rebuttal. Dal Maso v. Board of County Comm'rs 238 Md. 333, 335-37 (1965); Birckhead v. Board of County Comm'rs 260 Md. 594, 599-600 (1971); Montgomery County v. National Capital Realty Corp. 267 Md. 364, 375-76 (1972); Schultz v. Pritts 291 Md. 1, 7 (1981).

Wherefore, People's Counsel asks the CBA to admit Exhibits 10, 10A, 17 and 18.

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

Carole S Demilio

CAROLE S. DEMILIO
Deputy People's Counsel
The Jefferson Building, Suite 204
105 West Chesapeake Avenue
Towson, MD 21204
(410) 887-2188

CERTIFICATE OF SERVICE

I HEREBY CERTIFY this 28th day of September, 2018, a copy of this People's Counsel for Baltimore County's Interim Motion/Submission to Admit Evidence and Memorandum Concerning Evidence Law and Issues was mailed, first class mail and e-mail, to H. Barnes Mowell, Esq., 16925 York Road, Monkton, Maryland 21111, attorney for Protestants, and Adam Rosenblatt, Esq., and Patricia Malone, Esq, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorneys for Petitioner(s).

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

APPENDIX H
RULES OF PRACTICE AND PROCEDURE
OF THE BALTIMORE COUNTY BOARD OF APPEALS[1]

Rule 1. General

a. The county board of appeals shall select one of its members to be the chairman of the board, and he shall serve as chairman at the pleasure of the board. The chairman shall preside at all meetings of the county board of appeals, and in his absence he shall designate another member of the board to sit in his place as acting chairman.

b. Meetings of the county board of appeals shall be held as determined by the chairman, but never less than weekly; and the board shall meet at such other times as the board may determine.

c. Three (3) members of the board of appeals, as designated by the chairman, shall sit for the purpose of conducting the business of the board; and a majority vote of two (2) members shall be necessary to render a decision, except as follows: **[Bill No. 50-2005]**

    1. During the course of a hearing, if any member of the original panel is unable to continue to serve, the chairman shall appoint a member to fill the vacancy; or

    2. In the case of a remand, if any member of the original panel is unable to serve, the chairman shall appoint a member to fill the vacancy.

d. All appeals to the board from decisions of the zoning commissioner or deputy zoning commissioner shall be in conformance with the rules of the zoning commissioner of Baltimore County with respect to the form of appeal, and the filing fees shall be as established either by said rules of the zoning commissioner or by the Baltimore County Zoning Regulations. **[Bill No. 50-2005]**

e. Unless authorized by the board, a person may not take photographs, motion pictures or audio or video recordings of any kind during the conduct of a hearing before the board or during any public deliberation of the board. **[Bill No. 50-2005]**

Rule 2. Notice.

a. No hearing shall be conducted without at least ten (10) days' notice to all parties of record or their counsel of record, unless otherwise agreed to by all such parties or their counsel of record.

b. Postponements and continuances will be granted at the discretion of the board only upon request in writing by an attorney of record or a party of record (if not represented by counsel), addressed to the board and with a copy to every other attorney of record or party of record (if not represented by counsel) entitled to receive notice, in accordance with

[1] **Editor's Note: These rules are included here as they appear in Appendix B of the 2003 Edition of the Baltimore County Code.**

https://library.municode.com/md/baltimore_county/codes/zoning_regulations?nodeId=AP... 9/26/2018

c. A hearing may be adjourned from time to time for good cause shown and if the time and place of reconvening the hearing is announced at adjournment, no further notice of reconvening shall be required. If the time and place of reconvening is not announced at adjournment, notice of time and place of reconvening shall be given as required in rule 2a.

d. Depositions shall not be allowed unless by agreement of all parties or their counsel of record.

Rule 5. Subpoenas

a. The county board of appeals shall have the power to compel the attendance of witnesses and to require the production of records and documentary or other tangible evidence.

b. The board may cause subpoenas and subpoenas duces tecum to be issued upon its own motion, or upon the application of any party to any hearing; but subpoenas will not be issued upon application unless such application is in writing and sets forth the persons, records, books, papers or other documents to be produced and a general statement as to the purpose.

Rule 6. Appearances and practice before the board of appeals.

a. Any individual who is a party to a proceeding before the board may appear in his own behalf; any member of a partnership may appear as representing said partnership if it is a party; a duly authorized officer of a corporation, trust or an association may appear as representing said body if it is a party to the proceedings; and a duly authorized officer or an employee of any political subdivision or body or department may represent the same in any proceeding before the board.

b. Any party may be represented in any proceeding by an attorney-at-law admitted to practice before the Court of Appeals of Maryland.

c. No person shall appear before the board in a representative capacity, engage in practice, examine witnesses or otherwise act in a representative capacity except as provided in sections a. and b. above.

d. When an attorney wishes to appear in any proceeding in a representative capacity which involves a hearing before the county board of appeals, he shall file with the board a written notice of such appearance, which shall state his name, address, telephone number, and the names and addresses of the persons on whose behalf he has entered his appearance.

Rule 7. Evidence.

a. Any evidence which would be admissible under the general rules of evidence applicable in judicial proceedings in the State of Maryland shall be admissible in hearings before the

https://library.municode.com/md/baltimore_county/codes/zoning_regulations?nodeId=AP... 9/26/2018

county board of appeals. Proceedings before the board being administrative in nature, the board will not be bound by the technical rules of evidence but will apply such rules to the end that needful and proper evidence shall be most conveniently, inexpensively and speedily produced while preserving the substantial rights of the parties. Any oral or documentary evidence may be received; but the board reserves the right as a matter of policy to provide for the exclusion of immaterial or unduly repetitious evidence, and the number of witnesses may be limited if it appears that their testimony may be merely cumulative.

b. All evidence, including records and documents in the possession of the agency, of which it desires to avail itself, shall be offered and made part of the record. Documentary evidence may be received in the form of copies or excerpts, or by incorporation by reference.

c. Prepared statements may be read by participants in the hearing if they include factual material and do not include argument, provided copies of said statements have been delivered to the board and opposing counsel at least five (5) days prior to hearing, and their admissibility ruled upon, the same as if the factual content were presented in the usual manner. "Prepared statements" within the meaning of this section shall not include factual reports, written summations, letters, expert opinions of professional expert witnesses and other such similar documents.

d. Except as may otherwise be provided by statute or regulation, the proponent of action to be taken by the board shall have the burden of proof.

e. Any official record or entries therein when admissible for any purpose may be evidenced by an official publication thereof or by a copy attested by the officer having legal custody of the record, and the appearance of the officer will not be required unless demanded by a party to the case for good cause shown to the board. This rule does not prevent any party from summoning any proper witness to attend any hearing before the board.

f. Records of other proceedings before the board may be offered in evidence by the production of the files containing said records of such other proceedings.

g. In such cases as the board may determine, it may by order require that the direct testimony of all "expert" witnesses be submitted in writing, accompanied by copies of all exhibits to which reference is therein made, unless such are of a voluminous nature or within the files of, or readily available to, the board of appeals, in which case adequate reference shall be made thereto, which testimony shall be submitted by the parties required so to do and under the time and service provisions as contained in said order. Thereafter, said "expert" witnesses shall be personally present at the hearing for affirmation of their written statement and exhibits previously submitted and for cross-examination.

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USDA United States Department of Agriculture
Natural Resources Conservation Service

Web Soil Survey

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A A A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

Search

Clear Search

Basic Search

Enter keywords

Advanced Search

Clear Search

Area of Interest

Open All Close All

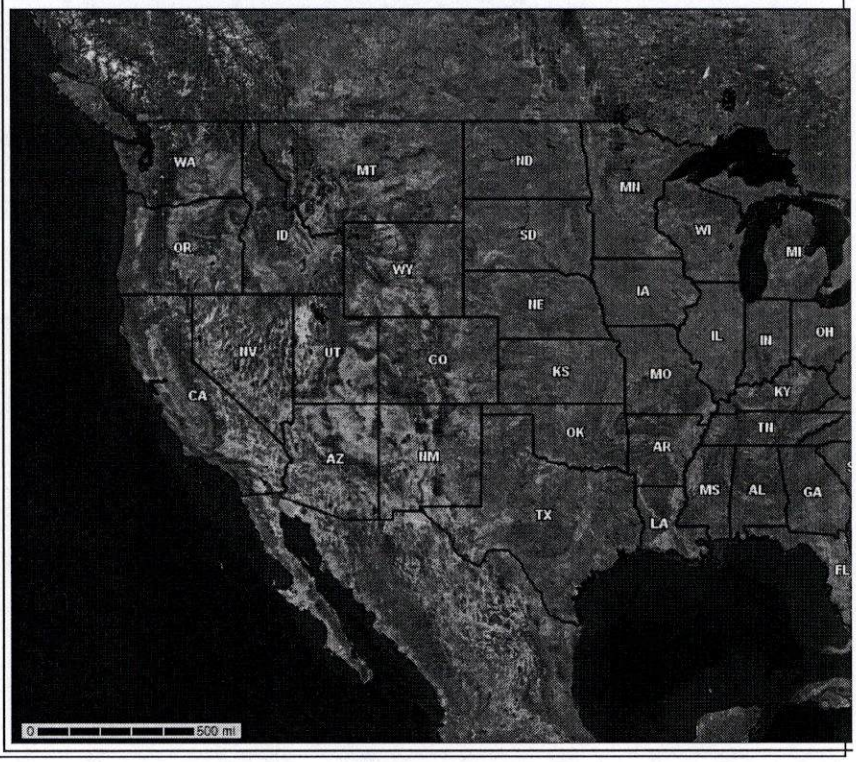
- AOI Properties
- Import AOI
- Export AOI

Quick Navigation

- Address
- State and County
- Soil Survey Area
- Latitude and Longitude or Current Location
- PLSS (Section, Township, Range)
- Bureau of Land Management
- Department of Defense
- Forest Service
- National Park Service
- Hydrologic Unit

Area of Interest Interactive Map

View Extent: Contiguous U.S. Scale



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A A A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

Search

Area of Interest

Import AOI

Quick Navigation

Address

View

Address: 632 Freeland Road, freeland, md

Show location marker

View

State and County

Soil Survey Area

Latitude and Longitude or Current Location

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

Forest Service

National Park Service

Hydrologic Unit

Area of Interest Interactive Map

View Extent: Contiguous U.S. | Scale



Search

Clear | Search

Basic Search

Enter keywords

Advanced Search

Clear | Search

Area of Interest

Open All | Close All

AOI Properties

Clear AOI

AOI Information

Name

Map Unit Symbols
- (•) Use Soil Survey Area Map Unit Symbols
- ( ) Use National Map Unit Symbols

Area (acres)

Baltimore County, Maryland	317.2
York County, Pennsylvania	3.29
Total	320.5

Soil Data Available from Web Soil Survey

Baltimore County, Maryland (MD005)

Data Availability	Tabular and Spatial, complete
Tabular Data	Version 12, Sep 18, 2017
Spatial Data	Version 8, Sep 19, 2016

York County, Pennsylvania (PA133)

Data Availability	Tabular and Spatial, complete
Tabular Data	Version 9, Oct 4, 2017
Spatial Data	Version 3, Dec 13, 2013

Clear AOI

Import AOI

Export AOI

Quick Navigation

Address

View

Address: 632 Freeland road, freeland, md

Show location marker: ☑

View

State and County

Soil Survey Area

Latitude and Longitude or Current Location

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

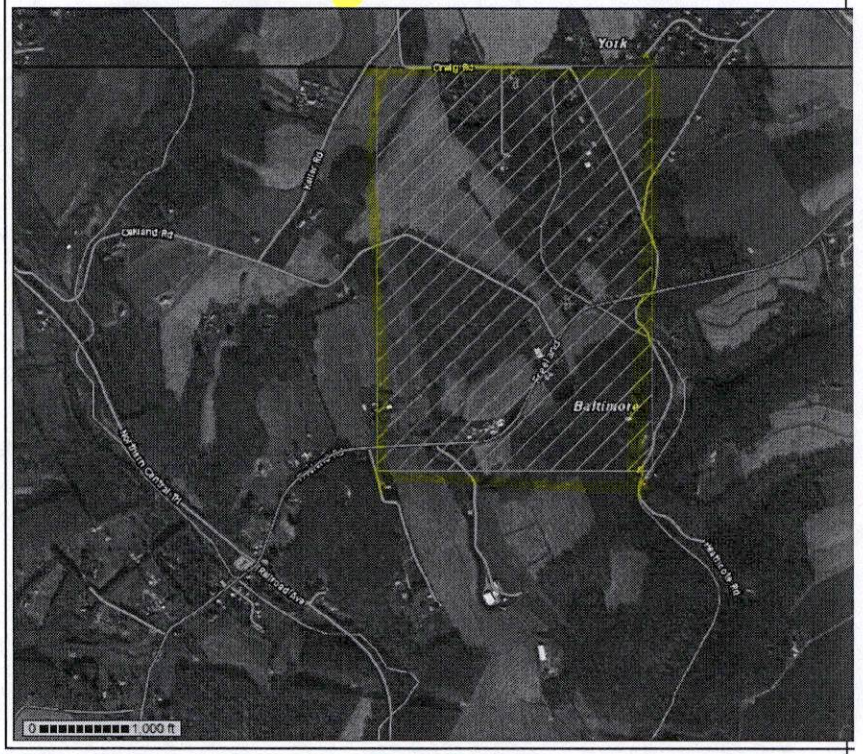
Forest Service

National Park Service

Hydrologic Unit

Area of Interest Interactive Map

View Extent: Contiguous U.S. | Scale



Soil Data Available

To see a description of the soil data available for a specific point on the map:

1. Click anywhere in the map. The soil data availability for that point will be shown here.
2. The point you clicked is marked with the identified point icon:
3. To see a map showing soil data availability for all locations in the U.S. and territories, click the **Soil Survey Status** link in the Navigation Bar above.

USDA United States Department of Agriculture
Natural Resources Conservation Service

Web Soil Survey

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A A A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

Printable Version | Add to Shopping Cart

Search

Clear | Search

Basic Search

Enter keywords

Advanced Search

Clear | Search

Map Unit Legend

Baltimore County, Maryland (MD005)
York County, Pennsylvania (PA133)

Baltimore County, Maryland (MD005)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	10.8	3.4%
BhB	Brinklow channery loam, 3 to 8 percent slopes	1.9	0.6%
BhC	Brinklow channery loam, 8 to 15 percent slopes	5.8	1.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	48.8	15.2%
CfA	Codorus silt loams, 0 to 3 percent slopes	11.6	3.6%
GdA	Glenelg loam, 0 to 3 percent	21.0	6.5%

Soil Map

Scale (not to scale)



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USDA NRCS Natural Resources Conservation Service

28577 Mary's Court, Suite 3
Easton, Md 21601

Sept. 25, 2018

Peter Max Zimmerman
People's Counsel for Baltimore County
Jefferson Building
105 West Chesapeake Ave. Room 204
Towson, Maryland 21204

Re: 632 Freeland Road Farm property
USDA Soils Configuration, USDA Soils Delineation
Baltimore County Board of Appeals Zoning Case No. 18-194-X

Dear Mr. Zimmerman,

Enclosed is the USDA-NRCS Official Soils map and report (containing soils information and several interpretation tables) of the farm property located at 632 Freeland Road Freeland, Maryland. This Soils Report was generated at the web site known as the USDA- NRCS Web Soil Survey (https://websoilsurvey.nrcs.usda.gov/app/). **As stated at the bottom of page 2, this is the site for official soil survey information.**

In your letter dated July 30, 2018, you asked me to provide you with my observations on several statements as related to the soils and soil survey for 632 Freeland Road.

1) NRCS assists in the implementation of the USDA Farmland Protection Policy Act of 1981. As stated in Part 523.2B of the Farmland Protection Policy Act Manual:

B. General Role

Under FPPA, NRCS will provide technical assistance to Federal agencies, State and local governments, Tribes, and nonprofit organizations that receive Federal funds or technical assistance. Examples of technical assistance include the following:

(i) Responding to requests for technical assistance in developing programs or policies that limit the conversion of productive farmland to nonagricultural uses
(ii) Advising agencies when a change in law, regulation, administrative rule, or other type of policy may affect the agency's compliance with FPPA
(iii) Providing site assessment criteria to governmental agencies and nonprofit organizations;
(iv) Developing important farmland maps
(v) Providing technical assistance during alternative site considerations, upon request by another Federal agency

The Farmland Protection Policy Act (FPPA) applies only to Federal assistance and actions that would convert important farmland to nonagricultural uses. It does not authorize the Federal Government in any way to regulate the use of private or non-Federal land or in any way affect the private property rights of owners of private land.

Provisions of FPPA apply to USDA programs that provide financial assistance as well as to programs that provide technical assistance.

Lands Subject to Provisions of FPPA are Important farmlands, including lands identified with soils that are prime, unique, or statewide or locally important farmland, are subject to the provisions of the Farmland Protection Policy Act.

NRCS also provides technical soils assistance to several Maryland State land preservation programs along with assistance to the Farm and Ranch Lands Protection Program (FRPP).

2) I have a Bachelor's Degree from the University of Maryland in Soil Science. I have worked with the USDA Soil Conservation Service, now known as the Natural Resources Conservation Service for over 40 years. My role as a Resource Soil Scientist is to provide guidance to internal and external customers on the interpretation and application of soil survey information related to specific soil, water, air, plant, and animal resource concerns. And providing direction and guidance for natural resource management, farm bill compliance, conducting information and education activities related to soils. I work closely with producers and landowners to provide technical expertise for USDA conservation programs.

3) I confirm that your People's Counsel Exhibit 9 My Neighborhood soils map is accurate and consistent with the USDA official soil survey found in the enclosed document.

4) I confirm that People's Counsel Exhibit 10 reflects the regular USDA accurate definitions and descriptions of the soils found at 632 Freeland Road.

5) The Glenelg soils found on site, specifically in the northern half the of site are considered Prime Farmland soils (GdA, GdB) and statewide importance soils (GdC, GeC). The Glenville soils are also classified as Prime Farmland soils (GhB). As stated in the report document (page 33) these soils are best suited to food, feed, fiber, forage, and oilseed crops. The Glenelg and Glenville soils have some of the highest ratings for crop productivity on the site (page 50).

If you have any questions about this letter or document, you may contact me at 443-746-4319.

Sincerely,

James E Brewer

James E. Brewer, CPSS/SC
NRCS Resource Soil Scientist
Easton, Maryland

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Baltimore County, Maryland, and York County, Pennsylvania

632 Freeland Road Farm



September 25, 2018

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

The following format is suggested for citing Web Soil Survey:

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Accessed [month/day/year].

Last Modified: 08/21/2017

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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GdA—Glenelg loam, 0 to 3 percent slopes 19
GdB—Glenelg loam, 3 to 8 percent slopes 21
GdC—Glenelg loam, 8 to 15 percent slopes 22
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

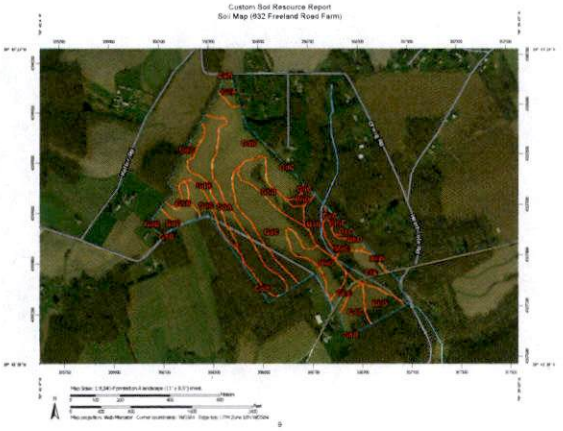
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Map Unit Polygons
Soil Map Unit Lines
Soil Map Unit Points
Special Point Features
Blowout
Borrow Pit
Clay Spot
Closed Depression
Gravel Pit
Gravelly Spot
Landfill
Lava Flow
Marsh or swamp
Mine or Quarry
Miscellaneous Water
Perennial Water
Rock Outcrop
Saline Spot
Sandy Spot
Severely Eroded Spot
Sinkhole
Slide or Slip
Sodic Spot
Spoil Area
Stony Spot
Very Stony Spot
Wet Spot
Other
Special Line Features
Water Features
Streams and Canals
Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads
Background
Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (632 Freeland Road Farm)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	10.1	10.4%
CtA	Codorus silt loams, 0 to 3 percent slopes	6.5	6.7%
GgA	Glenelg loam, 0 to 3 percent slopes	13.4	13.9%
GgB	Glenelg loam, 3 to 8 percent slopes	27.0	27.8%
GgC	Glenelg loam, 8 to 15 percent slopes	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	1.9	1.9%
MoE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	2.1	2.1%
Subtotals for Soil Survey Area		**97.0**	**99.9%**
Totals for Area of Interest		**97.1**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0.1	0.1%
Subtotals for Soil Survey Area		**0.1**	**0.1%**
Totals for Area of Interest		**97.1**	**100.0%**

Map Unit Descriptions (632 Freeland Road Farm)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic

class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can *differ* in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Baltimore County, Maryland

BaB—Baile silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: pnp5
Elevation: 250 to 980 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 120 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition
Baile and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baile

Setting
Landform: Swales, drainageways, hillslopes, depressions
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear, concave

Typical profile
A - 0 to 9 inches: silt loam
Btg - 9 to 32 inches: silty clay loam
Cg - 32 to 65 inches: loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 60 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 8 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: High (about 10.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Glenville
Percent of map unit: 15 percent
Landform: Swales, drainageways
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Linear

Hydric soil rating: No

BhC—Brinklow channery loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2v7gg
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Brinklow and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist

Typical profile
Ap - 0 to 10 inches: channery loam
Bt - 10 to 19 inches: channery silt loam
BC - 19 to 25 inches: channery loam
Cr - 25 to 35 inches: weathered bedrock
R - 35 to 45 inches: bedrock

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 36 inches to paralithic bedrock; 28 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 15 percent
Landform: Hillslopes, interfluves
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Linear
Across-slope shape: Concave, convex, linear
Hydric soil rating: No

BhD—Brinklow channery loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 2v7gf
Elevation: 250 to 1,000 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition
Brinklow and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist

Typical profile
Ap - 0 to 10 inches: channery loam
Bt - 10 to 19 inches: channery silt loam
BC - 19 to 25 inches: channery loam
Cr - 25 to 35 inches: bedrock
R - 35 to 45 inches: bedrock

Properties and qualities
Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 36 inches to paralithic bedrock; 28 to 40 inches to lithic bedrock
Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Blocktown
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

CfA—Codorus silt loams, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 2lp59
Elevation: 200 to 600 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Codorus and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from phyllite, schist, diabase and/or greenstone

Typical profile
Ap - 0 to 11 inches: silt loam
Bw1 - 11 to 18 inches: silt loam
Bw2 - 18 to 40 inches: gravelly silt loam
2C - 40 to 60 inches: stratified sand to very gravelly loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: High (about 9.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hatboro
Percent of map unit: 15 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

GdA—Glenelg loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 2w062
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days

Farmland classification: All areas are prime farmland

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
Cr - 42 to 54 inches: loam
C - 54 to 76 inches: very channery fine sandy loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Glenville
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Head slope, interfluve, base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: No

GdB—Glenelg loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2v7gp
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 8 inches: loam
Ap2 - 8 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Galla
Percent of map unit: 10 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Glenville
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

GdC—Glenelg loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2v7gq
Elevation: 30 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenelg and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear, concave, convex
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 8 inches: loam
Ap2 - 8 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 11.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinkhow
Percent of map unit: 10 percent
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

GeC—Glenelg channery loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2tp6x
Elevation: 250 to 1,050 feet
Mean annual precipitation: 37 to 55 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 255 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy residuum weathered from phyllite

Typical profile
Ap - 0 to 10 inches: channery loam
Bt1,Bt2,BCt1 - 10 to 30 inches: clay loam
BCt2, CBt - 30 to 54 inches: loam
C - 54 to 76 inches: very channery sandy loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Galla
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Manor
Percent of map unit: 5 percent
Landform: Interfluves, hillslopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

GhB—Glenville silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2tmch
Elevation: 20 to 1,090 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Glenville and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville

Setting
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Head slope, base slope, interfluve
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Parent material: Colluvium derived from metamorphic rock over schist, gneiss or phyllite residuum

Typical profile
Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 20 inches: channery silt loam
Bt2 - 20 to 30 inches: silt loam

Bt - 30 to 40 inches: silt loam
C1 - 40 to 59 inches: loam
C2 - 59 to 82 inches: loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: 29 to 31 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.03 to 0.11 in/hr)
Depth to water table: About 18 to 22 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Unnamed
Percent of map unit: 15 percent
Landform: Drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Balla
Percent of map unit: 10 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: Yes

GhC—Glenville silt loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2p8wp
Elevation: 250 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 110 to 235 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville

Setting
Landform: Swales, drainageways
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy colluvium derived from phyllite and/or loamy colluvium derived from schist

Typical profile
Ap - 0 to 8 inches: silt loam
Bt1, Bt2 - 8 to 30 inches: silt loam
Btx - 30 to 40 inches: loam
C1, C2 - 40 to 70 inches: loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: 24 to 39 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 15 percent
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

MdE—Manor-Brinklow complex, 25 to 45 percent slopes, very rocky

Map Unit Setting
National map unit symbol: 2tjfp
Elevation: 250 to 4,000 feet
Mean annual precipitation: 8 to 46 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Manor and similar soils: 55 percent
Brinklow and similar soils: 30 percent
Rock outcrop: 5 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manor

Setting
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy residuum derived from phyllite and/or loamy residuum derived from schist

Typical profile
A1, A2 - 0 to 5 inches: loam
Bw1, Bw2 - 5 to 22 inches: sandy loam
C1,C2,C3,C4 - 22 to 72 inches: channery loamy sand

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 5.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Brinklow

Setting
Landform: Hillslopes, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, free face
Parent material: Gravelly residuum weathered from schist and/or gravelly residuum weathered from phyllite

Typical profile
Ap - 0 to 10 inches: channery loam
Bt,BC - 10 to 25 inches: channery loam
Cr - 25 to 35 inches: weathered bedrock
R - 35 to 80 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 20 to 33 inches to paralithic bedrock; 33 to 80 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rock Outcrop

Typical profile
H1 - 0 to 80 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Blocktown
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, interfluve, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

York County, Pennsylvania

CeB—Chester silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2ff7y
Elevation: 10 to 1,170 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Chester and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chester

Setting
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Residuum weathered from mica schist

Typical profile
Ap - 0 to 10 inches: silt loam
BE - 10 to 17 inches: silt loam
Bt1 - 17 to 22 inches: clay loam
Bt2 - 22 to 30 inches: clay loam
Bt3 - 30 to 38 inches: clay loam
Bt4 - 38 to 55 inches: loam
C - 55 to 92 inches: fine sandy loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Glenville
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Head slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Gladstone
Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Mt. Airy
Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

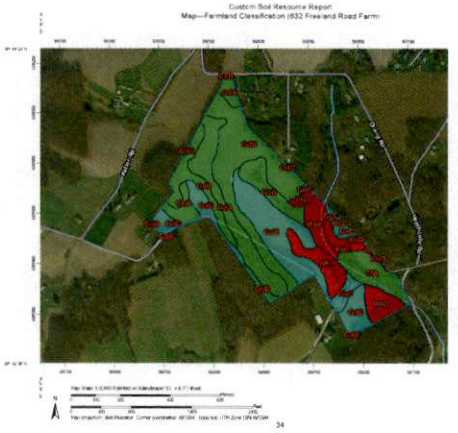
The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification (632 Freeland Road Farm)

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.







The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP INFORMATION

Table—Farmland Classification (632 Frooland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Bale silt loam, 3 to 8 percent slopes	Not prime farmland	3.8	4.0%
BhC	Brinkbow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	9.7	9.8%
BhD	Brinkbow channery loam, 15 to 25 percent slopes	Not prime farmland	10.1	10.4%
CtA	Cedarus silt loams, 0 to 3 percent slopes	All areas are prime farmland	6.6	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	13.4	13.8%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	22.7	23.4%
GeD	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	0.8	0.9%
GnB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	8.0	8.2%
GnC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.9	1.9%
MoE	Manor-Brinkbow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	2.1	2.1%
Subtotals for Soil Survey Area			97.0	99.9%
Totals for Area of Interest			97.1	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CaB	Chester silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.1	0.1%
Subtotals for Soil Survey Area			0.1	0.1%
Totals for Area of Interest			97.1	100.0%

Rating Options—Farmland Classification (632 Frooland Road Farm)

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Hydric Rating by Map Unit (632 Frooland Road Farm)

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

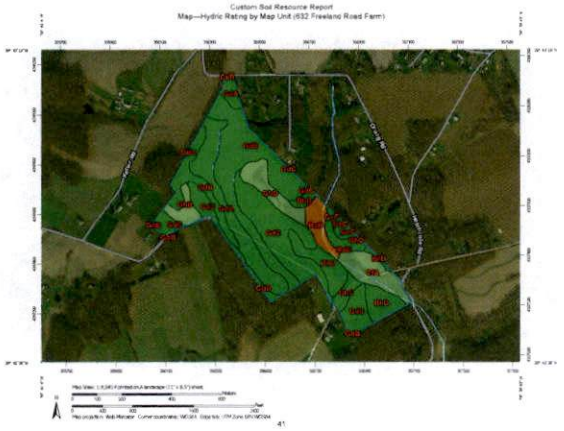
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Map—Hydric Rating by Map Unit (632 Freeland Road Farm)



MAP LEGEND

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydric Rating by Map Unit (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	85	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	0	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	0	10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	15	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	0	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	0	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	0	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	0	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	10	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	0	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	0	2.1	2.1%
Subtotals for Soil Survey Area			**97.0**	**99.9%**
Totals for Area of Interest			**97.1**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0	0.1	0.1%
Subtotals for Soil Survey Area			**0.1**	**0.1%**
Totals for Area of Interest			**97.1**	**100.0%**

Rating Options—Hydric Rating by Map Unit (632 Freeland Road Farm)

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

National Commodity Crop Productivity Index (632 Freeland Road Farm)

National Commodity Crop Productivity Index is a method of arraying the soils of the United States for non-irrigated commodity crop production based on their inherent soil properties. This version features a separate index for soybeans. In the past, soybeans and corn were considered together. The rating a soil is assigned is the highest one of four basic crop group indices, which are based on the climate where the crop is typically grown. Cooler climates are represented by winter wheat, moderate climates are represented by corn and soybeans, and warmer climates are represented by cotton. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050734.pdf)

The interpretation is applicable to both heavily populated and sparsely populated areas. Ratings are for soils in their present condition. The present land use is not considered in the ratings.

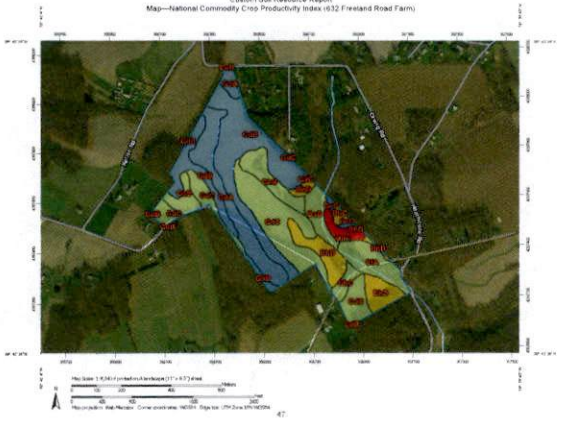
Ratings are based on properties and qualities to the depth normally observed during soil mapping (approximately 6 feet). Soil, site, and climate properties that influence the growth of crops are major considerations. Soil productivity is influenced by many soil properties. An ideal soil will store adequate amounts of water to nurture the crop between rains. This soil will have a near-neutral pH, will store nutrients, and lack toxic materials. The soil will have no barriers, either physical or chemical, to root growth. Water and gas transmission through the soil will be sufficient to maintain both water and oxygen at sufficient levels in the root zone. The soil will not be saturated with water during the growing season to the point that root growth is inhibited. The soil will not be subject to excessive flooding or ponding during the growing season. Slope is an important consideration because it affects erosion by water, runoff, and the operation of equipment. The climate must provide adequate water and heat to allow the desired crop to mature. A soil that differs from the ideal in any of these features will have lower inherent productivity for a particular crop. The further a soil differs from ideality in any one or all of the factors that determine inherent productivity, the lower its inherent productivity will be.

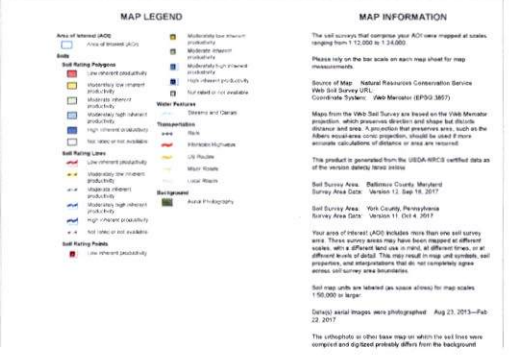
The ratings are both verbal and numerical. Rating class terms indicate the estimated productivity which is determined by all of the soil, site, and climatic features that affect crop productivity. "High inherent productivity" indicates that the soil, site, and climate have features that are very favorable for crop production. High yields and low risk of crop failure can be expected if a high level of management is employed. "Moderately high inherent productivity" indicates that the soil has features that are generally quite favorable for crop production. Good yields and moderately low risk of crop failure can be expected. "Moderate inherent productivity" indicates that the soil has features that are generally favorable for crop production. Good yields and moderate risk of crop failure can be expected. "Moderately low inherent productivity" indicates that the soil has features that are generally not favorable for crop production. Low yields and moderately high risk of crop failure can be expected. "Low inherent productivity" indicates that the soil has one or more features that are unfavorable for crop production. Low yields and high risk of crop failure can be expected.

Numerical ratings indicate the overall productivity of the soil. The ratings are shown in decimal fractions ranging from 1.00 to 0.01. They indicate gradations between the point at which the combination of soil, site, and climate features has the greatest positive impact on inherent productivity (1.00) and the point at which the soil features are very unfavorable (0.01).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.





MAP LEGEND	MAP INFORMATION

Tables—National Commodity Crop Productivity Index (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Bath silt loam, 3 to 8 percent slopes	0.538			3.8	4.0%
BhC	Brinkiow channery loam, 8 to 15 percent slopes	0.382			9.7	9.8%
BhD	Brinkiow channery loam, 15 to 25 percent slopes	0.321			10.1	10.4%
CIA	Cedarus silt loam, 0 to 3 percent slopes	0.583			6.5	6.7%
GoA	Glenelg loam, 0 to 3 percent slopes	0.863			13.4	13.8%
GoB	Glenelg loam, 3 to 8 percent slopes	0.893			27.0	27.8%
GoC	Glenelg loam, 8 to 15 percent slopes	0.538			22.7	23.4%
GrC	Glenelg channery loam, 8 to 15 percent slopes	0.720			0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	0.555			8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	0.502			1.9	1.9%
MdE	Mayer Brinkiow complex, 25 to 45 percent slopes, very rocky	0.101			2.1	2.1%
Subtotals for Soil Survey Area					97.0	99.9%
Totals for Area of Interest					97.1	100.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0.999			0.1	0.1%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area					0.1	0.1%
Totals for Area of Interest					97.1	100.0%

Rating	Acres in AOI	Percent of AOI
0.893	27.0	27.8%
0.538	22.7	23.4%
0.863	13.4	13.8%
0.321	10.1	10.4%
0.555	8.0	8.2%
0.583	6.5	6.7%
0.538	3.8	4.0%
0.502	1.9	1.9%
0.101	2.1	2.1%
0.720	0.8	0.8%
0.382	9.7	9.8%
0.999	0.1	0.1%
Totals for Area of Interest	97.1	100.0%

Rating Options—National Commodity Crop Productivity Index (632 Freeland Road Farm)

Aggregation Method: Weighted Average

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

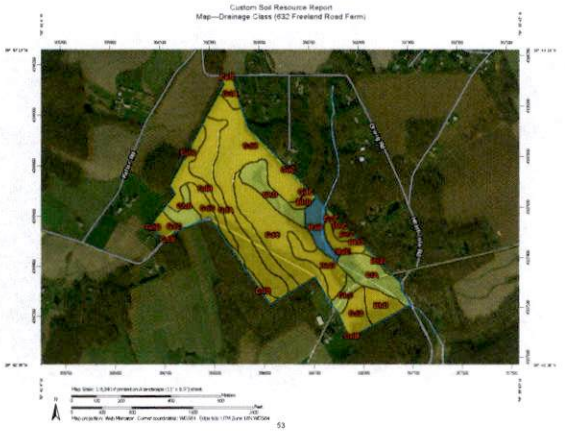
The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Drainage Class (632 Freeland Road Farm)

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."



MAP LEGEND

Area of Interest (AOI)
Area of Interest (AOI)

Soils
Soil Rating Polygons
Excessively drained
Somewhat excessively drained
Well drained
Moderately well drained
Somewhat poorly drained
Poorly drained
Very poorly drained
Subaqueous
Not rated or not available

Water Features
Streams and Canals

Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background
Aerial Photography

Soil Rating Lines
Excessively drained
Somewhat excessively drained
Well drained
Moderately well drained
Somewhat poorly drained
Poorly drained
Very poorly drained
Subaqueous
Not rated or not available

Soil Rating Points

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND **MAP INFORMATION**

Imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Drainage Class (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	Poorly drained	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Well drained	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Well drained	10.1	10.4%
CtA	Codorus silt loams, 0 to 3 percent slopes	Moderately well drained	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	Well drained	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	Well drained	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Well drained	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Well drained	0.8	0.8%
GlnB	Glenville silt loam, 3 to 8 percent slopes	Moderately well drained	8.0	8.2%
GlnC	Glenville silt loam, 8 to 15 percent slopes	Moderately well drained	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Well drained	2.1	2.1%
Subtotals for Soil Survey Area			**97.0**	**99.9%**
Totals for Area of Interest			**97.1**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	Well drained	0.1	0.1%
Subtotals for Soil Survey Area			**0.1**	**0.1%**
Totals for Area of Interest			**97.1**	**100.0%**

Rating Options—Drainage Class (632 Freeland Road Farm)

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified
Tie-break Rule: Higher

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Map Unit Description (Brief, Generated) (632 Freeland Road Farm)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in the report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated) (632 Freeland Road Farm)

Baltimore County, Maryland

Map Unit: BaB—Baile silt loam, 3 to 8 percent slopes

Component: Baile (85%)

The Baile, component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on depressions, drainageways, swales, piedmonts. The parent material consists of loamy colluvium derived from phyllite and/or loamy colluvium derived from schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Component: Glenville (15%)

Generated brief soil descriptions are created for major components. The Glenville soil is a minor component.

Map Unit: BhC—Brinklow channery loam, 8 to 15 percent slopes

Component: Brinklow (85%)

The Brinklow component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes on piedmonts. The parent material consists of gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 36 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Glenelg (15%)

Generated brief soil descriptions are created for major soil components. The Glenelg soil is a minor component.

Map Unit: BhD—Brinklow channery loam, 15 to 25 percent slopes

Component: Brinklow (80%)

The Brinklow component makes up 80 percent of the map unit. Slopes are 15 to 25 percent. This component is on hillslopes on piedmonts. The parent material consists of gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 36 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Blocktown (10%)

Generated brief soil descriptions are created for major soil components. The Blocktown soil is a minor component.

Component: Glenelg (10%)

Generated brief soil descriptions are created for major soil components. The Glenelg soil is a minor component.

Map Unit: CtA—Codorus silt loams, 0 to 3 percent slopes

Component: Codorus (85%)

The Codorus, component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on flood plains, river valleys. The parent material consists of loamy alluvium derived from phyllite, schist, diabase and/or greenstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Hatboro (15%)

Generated brief soil descriptions are created for major components. The Hatboro soil is a minor component.

Map Unit: GdA—Glenelg loam, 0 to 3 percent slopes

Component: Glenelg (85%)

The Glenelg component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on nearly level to steeply dissected hillslopes, upland piedmonts. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria.

Component: Brinklow (10%)

Generated brief soil descriptions are created for major soil components. The Brinklow soil is a minor component.

Component: Glenville (5%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Map Unit: GdB—Glenelg loam, 3 to 8 percent slopes

Component: Glenelg (85%)

The Glenelg component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on nearly level to steeply dissected hillslopes, upland piedmonts. The parent material consists of residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Gaila (10%)

Generated brief soil descriptions are created for major soil components. The Gaila soil is a minor component.

Component: Glenville (5%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Map Unit: GdC—Glenelg loam, 8 to 15 percent slopes

Component: Glenelg (90%)

The Glenelg component makes up 90 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes, piedmonts. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Brinklow (10%)

Generated brief soil descriptions are created for major soil components. The Brinklow soil is a minor component.

Map Unit: GeC—Glenelg channery loam, 8 to 15 percent slopes

Component: Glenelg (85%)

The Glenelg, component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes, piedmonts. The parent material consists of loamy residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Gaila (10%)

Generated brief soil descriptions are created for major components. The Gaila soil is a minor component.

Component: Manor (5%)

Generated brief soil descriptions are created for major components. The Manor soil is a minor component.

Map Unit: GhB—Glenville silt loam, 3 to 8 percent slopes

Component: Glenville (75%)

The Glenville component makes up 75 percent of the map unit. Slopes are 3 to 8 percent. This component is on drainageways, piedmonts. The parent material consists of colluvium over schist, gneiss or phyllite residuum. Depth to a root restrictive layer, fragipan, is 29 to 31 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal

zone of water saturation is at 20 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Unnamed (15%)

Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Bails (10%)

Generated brief soil descriptions are created for major soil components. The Bails soil is a minor component.

Map Unit: GhC—Glenville silt loam, 8 to 15 percent slopes

Component: Glenville (85%)

The Glenville, component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on drainageways, swales, piedmonts. The parent material consists of loamy colluvium derived from phyllite and/or loamy colluvium derived from schist. Depth to a root restrictive layer, fragipan, is 24 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 20 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Glenelg (15%)

Generated brief soil descriptions are created for major components. The Glenelg soil is a minor component.

Map Unit: MdE—Manor-Brinklow complex, 25 to 45 percent slopes, very rocky

Component: Manor (55%)

The Manor, component makes up 55 percent of the map unit. Slopes are 25 to 45 percent. This component is on hillslopes, piedmonts. The parent material consists of loamy residuum derived from phyllite and/or loamy residuum derived from schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Component: Brinklow (30%)

The Brinklow component makes up 30 percent of the map unit. Slopes are 25 to 45 percent. This component is on hillslopes, piedmonts, hillslopes. The parent material consists of gravelly residuum weathered from schist and/or gravelly residuum weathered from phyllite. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 33 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Blocktown (10%)

Generated brief soil descriptions are created for major components. The Blocktown soil is a minor component.

Component: Rock outcrop (5%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.

York County, Pennsylvania

Map Unit: CeB—Chester silt loam, 3 to 8 percent slopes

Component: Chester (80%)

The Chester component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on hillslopes, upland piedmonts. The parent material consists of residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Glenville (10%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Component: Gladstone (5%)

Generated brief soil descriptions are created for major soil components. The Gladstone soil is a minor component.

Component: Mt. Airy (5%)

Generated brief soil descriptions are created for major soil components. The Mt. Airy soil is a minor component.

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Jack Dillon
543 Park Ave.
Towson, MD 21204
410-491-4875
jackdillon543@gmail.com

September 7, 2018

Peter Max Zimmerman
Office of Peoples Counsel
105 West Chesapeake Ave.
Towson, MD 21204

RE: 632 Freeland Road Farm property
Board of Appeals Case No. 18-194-X

Dear Peter Max Zimmerman,

In response to your request for me to review the information that you sent with regard to the above referenced case I offer my personal and professional comments on this request with regards to the issue of the use of USDA Soil Survey maps and their identification of various soils for this property.

1. As a former Senior Planner in the Office of Planning and one who was part of a team that prepared and drafted the maps and regulations for the Resource Conservation Zones which were adopted in 1976 (Bill 98-1975) I can attest to the fact the USDA soils maps were a critical part of the formation of the RC2 Agricultural Zone.

2. While Baltimore County is a large county it has a finite amount of prime and productive soils that must be protected in order to maintain a viable agricultural industry. When these prime and productive soils are taken out of production for extended periods of time it has a negative effect on the industry as a whole.

3. In Section 1A01.1 A.1a the Legislative findings of the RC 2 Zone, the initial statement is "That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;". Sub-section B. Purposes. "The RC2 zoning classification is established pursuant to the legislative findings above in order to

foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban use."

4. Agricultural Priority Preservation Areas. The Baltimore County, Maryland Master Plan 2010 states "APPA's are based on their capability for agricultural production and the existence of agricultural operations and preserved lands".

5. The Maryland Agricultural Land Preservation Program basses its ranking of a farm that has been submitted for easement purchase on the amount of prime and productive soils as a part of its review. The USDA Soil Maps are used to ascertain that information.

The United states Department of Agriculture , (USDA) , Natural Resources Conservation Service has uploaded the Soil Survey for each county throughout the US to their website https://websoilsurvey.ncrs.usda.gov/app/HomePage.htm in order to provide a more convenient access to anyone won needs information on soils for any particular property in the US. I have reviewed the soil map for this property and downloaded some additional information for this properties farmland classification and verified that the information contained in People's Counsel Exhibit's 9 and 10 are accurate. (see attached) This particular farm consists of predominantly prime and productive soils. Also, this farm is within the adopted Agricultural Priority Preservation Area of Baltimore County.

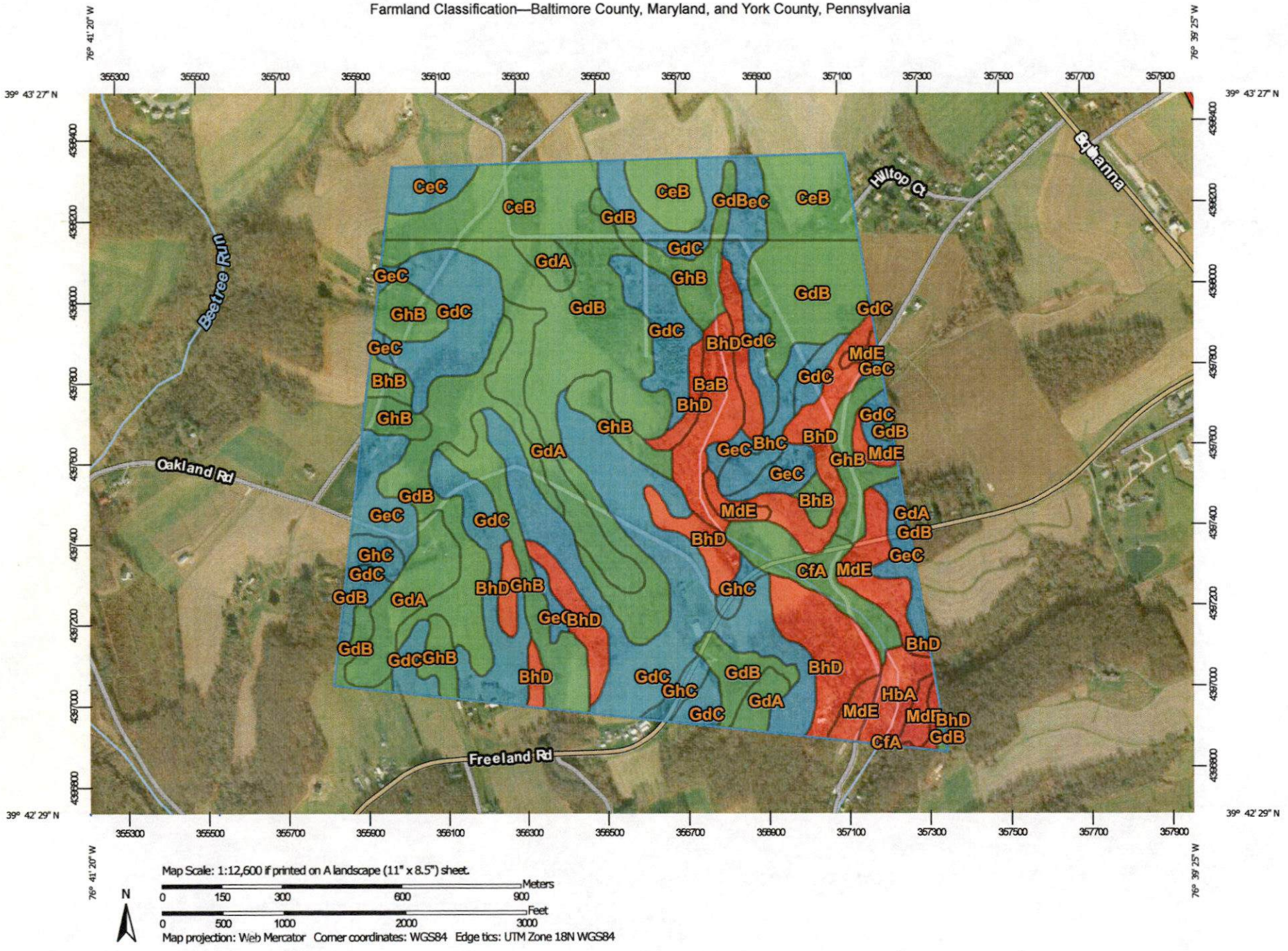
In summery the use of USDA soils maps weather on line or the Soils book are the "gold standard" in determining the quality of soil in any part of the county. It is used in any part of land planning and engineering when information is needed as to the benefits and limitations of land is needed. With regard to the request at hand it is obvious that the proposed location of the solar panels would cover a substantial portion of prime and productive soils and in my opinion is in direct contrast to the foundation of the purpose and intent of the RC 2 zone and the Master Plan for Baltimore County.

Thank you for the opportunity to provide this input.

Sincerely,

Jack Dillon

Farmland Classification—Baltimore County, Maryland, and York County, Pennsylvania



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	Not prime farmland	10.8	2.4%
BhB	Brinklow channery loam, 3 to 8 percent slopes	All areas are prime farmland	4.3	0.9%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	5.8	1.3%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	47.3	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	All areas are prime farmland	11.0	2.4%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	29.1	6.4%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	90.0	19.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	106.6	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	21.5	4.7%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	42.5	9.3%
GhC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	7.1	1.6%
HbA	Hatboro silt loams, 0 to 3 percent slopes	Not prime farmland	5.9	1.3%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	16.6	3.7%
Subtotals for Soil Survey Area			**398.4**	**87.6%**
Totals for Area of Interest			**454.9**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	All areas are prime farmland	38.1	8.4%
CeC	Chester silt loam, 8 to 15 percent slopes	Farmland of statewide importance	15.4	3.4%
GdB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	3.0	0.7%
Subtotals for Soil Survey Area			**56.5**	**12.4%**
Totals for Area of Interest			**454.9**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Krysundra Cannington

From: Peoples Counsel
Sent: Friday, September 28, 2018 10:54 AM
To: barney Mowell; Rosenblatt, Adam M.; Malone, Patricia A.
Cc: Krysundra Cannington; Tammy Zahner
Subject: Charles & Stephen Atkinson - One Energy Development - 632 Freeland Road - Case No.: 2018-194-X
Attachments: 20180928101226906.pdf

Good Morning,

Attached you will find a copy of People's Counsel for Baltimore County's Interim Motion/Submission to Admit Evidence and Memorandum Concerning Evidence Law and Issues. This document was filed with the Board of Appeals today. A hardcopy will follow by U.S. Mail.

If you have any problems viewing the document, please let me know.

Thank you for your consideration.

Rebecca M. Wheatley, Legal Secretary
People's Counsel for Baltimore County
105 West Chesapeake Avenue, Suite 204
Towson, Maryland 21204
(410) 887-2189 Direct Dial
(410) 887-2188 Office
(410) 823-4236 Fax

Krysundra Cannington

From: Krysundra Cannington
Sent: Wednesday, September 26, 2018 9:16 AM
To: Malone, Patsy; Adam Rosenblatt Esquire; barney Mowell; Peter Max Zimmerman
Cc: Peoples Counsel
Subject: Atkinson Hearings

Counsel,

Thank you for your understanding yesterday. As you know we have another hearing date scheduled in this matter on October 9, 2018 at 10:00 a.m.

In an effort to reschedule yesterday's hearing date, I can offer the following dates/times: October 30, 2018 at 11:00 a.m.; November 27, 2018 at 9:00 a.m. or 10:00 a.m.; or January 15, 2018 at 9:00 a.m. or 10 a.m.

I kindly ask that when you advise as to your availability, please provide any documentation for any reason you are not available.

Thank you for your prompt attention to this matter.

Sunny

Krysundra "Sunny" Cannington
Administrator
Board of Appeals of Baltimore County
410-887-3180

Confidentiality Statement

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Board of Appeals of Baltimore County

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410-887-3180
FAX: 410-887-3182

August 2, 2018

NOTICE OF ASSIGNMENT

IN THE MATTER OF: Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
18-194-X 632 Freeland Road
7th Election District; 3rd Councilmanic District

Re: Petition for Special Exception pursuant to the BCZR Section 4E-102 for a solar facility on property zoned RC-2.

4/3/18 Opinion and Order of the Administrative Law Judge wherein the Petition for Special Exception was GRANTED, subject to conditions.

ASSIGNED FOR: **SEPTEMBER 25, 2018, AT 10:00 A.M. – Day 3**
OCTOBER 9, 2018, AT 10:00 A.M. – Day 4

LOCATION: Hearing Room #2, Second Floor, Suite 206
Jefferson Building, 105 W. Chesapeake Avenue, Towson

NOTICE:

- This appeal is an evidentiary hearing. Parties should consider the advisability of retaining an attorney.
- Please refer to the Board's Rules of Practice & Procedure, Appendix B, Baltimore County Code.
- No postponements will be granted without sufficient reasons; said requests must be in writing and in compliance with Rule 2(b) of the Board's Rules. No postponements will be granted within 15 days of scheduled hearing date unless in full compliance with Rule 2(c).
- If you have a disability requiring special accommodations, please contact this office at least one week prior to hearing date.
- Parties must file one (1) original and three (3) copies of all Motions, Memoranda, and exhibits (including video and PowerPoint) with the Board unless otherwise requested.
- Projection equipment for digital exhibits is available by request. A minimum of forty-eight (48) hours-notice is required. Supply is limited and not guaranteed.

For further information, including our inclement weather policy, please visit our website www.baltimorecountymd.gov/Agencies/appeals/index.html

Krysundra "Sunny" Cannington
Administrator

c:	Counsel for Petitioner/Legal Owner	: Adam M. Rosenblatt, Esquire
	Petitioner/Legal Owner	: Charles Atkinson and Stephen Atkinson
	Lessee	: OneEnergy Development, LLC
	Counsel for Protestants	: H. Barnes Mowell, Esquire
	Protestants	: Freeland Legacy Alliance, Inc, Bobby Rohe, Don and Nadine Lentz, John Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore
	People's Counsel for Baltimore County	: Peter M. Zimmerman, Esquire

Andrea Van Arsdale, Director/Department of Planning
Arnold Jablon, Director/PAI
Lawrence M. Stahl, Managing Administrative Law Judge
Michael Field, County Attorney, Office of Law
Nancy West, Assistant County Attorney

Baltimore County, Maryland
OFFICE OF PEOPLE'S COUNSEL
Jefferson Building
105 West Chesapeake Avenue, Room 204
Towson, Maryland 21204

410-887-2188
Fax: 410-823-4236

PETER MAX ZIMMERMAN
People's Counsel

CAROLE S. DEMILIO
Deputy People's Counsel

August 10, 2018

Gregory Hilton, Clerk
Court of Special Appeals of Maryland
Robert C. Murphy Courts of Appeal Building
361 Rowe Boulevard
Annapolis, MD 21401

Re: In the Matter of: Loren Staples, et al. v. Baltimore County, Maryland, et al.
CSA Case No.: 1479, September Term 2017
and
In the Matter of: Irvin Baddock, et al. v. Baltimore County, Maryland, et al.
CSA Case No.: 1271, September Term 2017
Argument Dates: October 1-11, 2018

Dear Mr. Hilton:

Per a previous letter, we have asked that you abstain from scheduling either of the above-mentioned cases on October 4, 2018. Both above-referenced cases are scheduled for argument during the time period October 1-11, 2018.

We have just been scheduled for a fourth day of hearing on October 9, 2018, for In the Matter of: Charles Gary Atkinson and Stephen Gordon Atkinson, Case No. 2018-194-X. This zoning case is before the Baltimore County Board of Appeals. I am enclosing a copy of the Notice of Assignment. There are multiple parties involved in the zoning case, and complex scheduling issues. It would be in the public interest if we could preserve the October 9th date.

In sum, I respectfully request that argument for both of this cases be set on a date other than October 4, 2018 and October 9, 2018.

Thank you kindly for your cooperation.

Very truly yours,

Peter Max Zimmerman

Peter Max Zimmerman
People's Counsel for Baltimore County

PMZ/rmw
cc: Peter Prevas, Esquire
R. Brady Locher, Assistant County Attorney
Alan Zukerberg, Esquire
Nancy West, Assistant County Attorney
Adam Rosenblatt, Esquire
Patricia Malone, Esquire
H. Barnes Mowell, Esquire
Baltimore County Board of Appeals

Board of Appeals of Baltimore County

JEFFERSON BUILDING
SECOND FLOOR, SUITE 203
105 WEST CHESAPEAKE AVENUE
TOWSON, MARYLAND, 21204
410-887-3180
FAX: 410-887-3182

CD/PM2

RECEIVED BY
AUG 02 2018
PEOPLE'S COUNSEL FOR
BALTIMORE COUNTY

August 2, 2018

NOTICE OF ASSIGNMENT

IN THE MATTER OF: Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee

18-194-X 632 Freeland Road
7th Election District; 3rd Councilmanic District

Re: Petition for Special Exception pursuant to the BCZR Section 4E-102 for a solar facility on property zoned RC-2.

4/3/18 Opinion and Order of the Administrative Law Judge wherein the Petition for Special Exception was GRANTED, subject to conditions.

ASSIGNED FOR: **SEPTEMBER 25, 2018, AT 10:00 A.M. – Day 3**
OCTOBER 9, 2018, AT 10:00 A.M. – Day 4

LOCATION: Hearing Room #2, Second Floor, Suite 206
Jefferson Building, 105 W. Chesapeake Avenue, Towson

NOTICE:

- This appeal is an evidentiary hearing. Parties should consider the advisability of retaining an attorney.
- Please refer to the Board's Rules of Practice & Procedure, Appendix B, Baltimore County Code.
- No postponements will be granted without sufficient reasons; said requests must be in writing and in compliance with Rule 2(b) of the Board's Rules. No postponements will be granted within 15 days of scheduled hearing date unless in full compliance with Rule 2(c).
- If you have a disability requiring special accommodations, please contact this office at least one week prior to hearing date.
- Parties must file one (1) original and three (3) copies of all Motions, Memoranda, and exhibits (including video and PowerPoint) with the Board unless otherwise requested.
- Projection equipment for digital exhibits is available by request. A minimum of forty-eight (48) hours-notice is required. Supply is limited and not guaranteed.

For further information, including our inclement weather policy, please visit our website www.baltimorecountymd.gov/Agencies/appeals/index.html

Krysundra "Sunny" Cannington
Administrator

c:	Counsel for Petitioner/Legal Owner	: Adam M. Rosenblatt, Esquire
	Petitioner/Legal Owner	: Charles Atkinson and Stephen Atkinson
	Lessee	: OneEnergy Development, LLC
	Counsel for Protestants	: H. Barnes Mowell, Esquire
	Protestants	: Freeland Legacy Alliance, Inc, Bobby Rohe, Don and Nadine Lentz, John Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore
	People's Counsel for Baltimore County	: Peter M. Zimmerman, Esquire

Andrea Van Arsdale, Director/Department of Planning
Arnold Jablon, Director/PAI
Lawrence M. Stahl, Managing Administrative Law Judge
Michael Field, County Attorney, Office of Law
Nancy West, Assistant County Attorney

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Friday, August 10, 2018 9:34 AM
To: Krysundra Cannington
Cc: AMrosenblatt@Venable.com; Malone, Patricia A. (PAMalone@Venable.com); barneymowell@hotmail.com; Lynne Jones
Subject: Scheduling of Atkinson case

Dear Ms. Cannington,

Upon review of Mr. Rosenblatt's suggestion, I have no objection to retaining October 9 at this time, as long as it is understood I have a potential Court of Special Appeals conflict, depending on the exact appellate date, which would necessitate rescheduling of the possible 4th day, if necessary. I do share the hope there will be no conflict.

Furthermore, I will attempt to reduce the chance of conflict by promptly informing the Court of Special Appeals of this October 9 date and asking that the appellate cases not be set on that date. I will send all parties here a copy of that letter.

I will also inform all parties of the Court of Special Appeals scheduling notice as soon as it is received or we see it online.

With the above understanding, I am hopeful there will turn out to be no conflict.

Sincerely, Peter Max Zimmerman, People's Counsel

Krysundra Cannington

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Thursday, August 09, 2018 5:34 PM
To: Peter Max Zimmerman; Krysundra Cannington
Cc: Malone, Patricia A.; barneymowell@hotmail.com; Lynne Jones
Subject: RE: Scheduling of Atkinson case, No. 18-194-X

Respectfully, there is no reason to change this hearing date when there is no guarantee that the other case will be scheduled for October 9. Please keep the date unless/until we hear that there is an actual conflict.

Adam M. Rosenblatt, Esq.
Venable LLP
t 410.494.6271 | m 410.294.9430
210 W. Pennsylvania Avenue
Suite 500
Towson, MD 21204

From: Peter Max Zimmerman <pzimmerman@baltimorecountymd.gov>
Date: Thursday, Aug 09, 2018, 5:12 PM
To: Krysundra Cannington <kcannington@baltimorecountymd.gov>
Cc: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>, Malone, Patricia A. <PAMalone@Venable.com>, barneymowell@hotmail.com <barneymowell@hotmail.com>, Lynne Jones <dryad101@hotmail.com>
Subject: Scheduling of Atkinson case, No. 18-194-X

To Krysundra Cannington, Administrator, County Board of Appeals

Dear Ms. Cannington,

I just returned to the office today from vacation out of state, as I have been away since July 31.

In catching up on paperwork, I just saw the Notice of Assignment to schedule the continuation of this case for September 25 and October 9, 2018.

I have a conflict with the October 9 date.

The Court of Special Appeals clerk has reserved October 1-11, 2018 for my oral argument for Baddock v. Baltimore County, No. 1271, 2017 Term, and Staples v. Baltimore County, No. 1479, 2017 Term.

Consistent with Court of Special Appeals practice, we will not be notified of the precise dates until the end of August.

I would appreciate it if you would provide some alternate hearing dates for the present case. I am clear the rest of the month of October.

Thank you. I appreciate your consideration.

Sincerely, Peter Max Zimmerman, People's Counsel

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Thursday, August 09, 2018 5:13 PM
To: Krysundra Cannington
Cc: AMrosenblatt@Venable.com; Malone, Patricia A. (PAMalone@Venable.com); barneymowell@hotmail.com; Lynne Jones
Subject: Scheduling of Atkinson case, No. 18-194-X

To Krysundra Cannington, Administrator, County Board of Appeals

Dear Ms. Cannington,

I just returned to the office today from vacation out of state, as I have been away since July 31.

In catching up on paperwork, I just saw the Notice of Assignment to schedule the continuation of this case for September 25 and October 9, 2018.

I have a conflict with the October 9 date.

The Court of Special Appeals clerk has reserved October 1-11, 2018 for my oral argument for Baddock v. Baltimore County, No. 1271, 2017 Term, and Staples v. Baltimore County, No. 1479, 2017 Term.

Consistent with Court of Special Appeals practice, we will not be notified of the precise dates until the end of August.

I would appreciate it if you would provide some alternate hearing dates for the present case. I am clear the rest of the month of October.

Thank you. I appreciate your consideration.

Sincerely, Peter Max Zimmerman, People's Counsel

Krysundra Cannington

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Tuesday, July 31, 2018 1:13 PM
To: barney Mowell; Krysundra Cannington; Malone, Patricia A.; Peoples Counsel; Carole Demilio
Subject: RE: Atkinson 18-194-X Day 3

Ms. Cannington,

I spoke with the Office of People's Counsel and they are available on September 25 and October 9 to continue this hearing. We would ask that you schedule both of those dates for this case.

Mr. Mowell stated that one of his lay witnesses, Ms. Pieper, has apparently scheduled multiple vacations and is unavailable for any of the September dates. If she cannot appear on September 25, she can appear on October 9 to explain her concerns to the Board. Ms. Pieper testified before the ALJ in this case and she lives 10+ miles from the subject property. Perhaps her concerns can be relayed by the interested neighbors that live adjacent to the property. If she still wishes to testify, she can do so on October 9.

Please schedule September 25 and October 9 for this case so it can be completed. Thank you for your time and consideration.

Adam M. Rosenblatt, Esq. | Venable LLP
t 410.494.6271 | f 410.821.0147 | m 410.294.9430
210 W. Pennsylvania Avenue, Suite 500, Towson, MD 21204

AMRosenblatt@Venable.com | http://secure-web.cisco.com/1Gxy9hYNwfkea2wwNQQ9LZVnMFrpCA7h9UlqdYdz-1HkRaZz5h_mUdm92SgJ0jl60IgamcEjheoG39ZCvt8CQmy4DBVZSI3-WVoAN_FyN-W52fRJRsJ6H69Au3QAksbr4VGBjFrGc3I7mdffHrxetOk7Iw_NSmuw1E8v-t8sf4BeDWV7BCKB9AFYKFFp0WhiHBXmjgVEpC0NtT-14zvdy37zQJgG-V65qtzu4X17Gvn4cD7cFF8MZICwz1cXMhom_VvSbP4HO0FaiFw-61PdivCAPgHQFI15JO7eVfu-LAzSgIdstA7CnfjUKX06t99YqH2DpktYkGgDOK5bHPwCLpz2RLdDWcWIQfHsTHmckJQm1WUzMXQcB0QjqdqcDfWtysFEzbPsceEbMBfwOcv5Y2xS0F9TI6w4mfuRGKLWevcMcT2ytn16BH16mmQCLcgPe-GsL30-7E3070DKHV6nerg/http%3A%2F%2Fwww.Venable.com

From: barney Mowell [mailto:barneymowell@hotmail.com]
Sent: Monday, July 30, 2018 2:30 PM
To: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>; Krysundra Cannington <kcannington@baltimorecountymd.gov>; Malone, Patricia A. <PAMalone@Venable.com>; Peoples Counsel <peoplescounsel@baltimorecountymd.gov>
Subject: Re: Atkinson 18-194-X Day 3

Ms. Cannington: Kathie Pieper, one of our four witnesses who was set to testify next, is unavailable for any of the September dates. She will be on two pre-planned (and one pre-paid) out of state vacations on those September dates. I have a jury trial scheduled in the Circuit Court for Howard County on October 30th (First Group America v. Magill, et al, case no: 13-C-17-112425 MT). As noted in Peter Zimmerman's earlier e-mail, we expect to call at least three additional witnesses beyond the four who were ready at the hearing last week; I am not sure whether our remaining witnesses can be completed in one day. thanks, Barney Mowell

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Monday, July 30, 2018 1:43:41 PM
To: Krysundra Cannington; Malone, Patricia A.; barney Mowell; Peoples Counsel
Subject: RE: Atkinson 18-194-X Day 3

Krysundra Cannington

From: barney Mowell <barneymowell@hotmail.com>
Sent: Monday, July 30, 2018 2:30 PM
To: Rosenblatt, Adam M.; Krysundra Cannington; Malone, Patricia A.; Peoples Counsel
Subject: Re: Atkinson 18-194-X Day 3

Ms. Cannington: Kathie Pieper, one of our four witnesses who was set to testify next, is unavailable for any of the September dates. She will be on two pre-planned (and one pre-paid) out of state vacations on those September dates. I have a jury trial scheduled in the Circuit Court for Howard County on October 30th (First Group America v. Magill, et al, case no: 13-C-17-112425 MT). As noted in Peter Zimmerman's earlier e-mail, we expect to call at least three additional witnesses beyond the four who were ready at the hearing last week; I am not sure whether our remaining witnesses can be completed in one day. thanks, Barney Mowell

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Monday, July 30, 2018 1:43:41 PM
To: Krysundra Cannington; Malone, Patricia A.; barney Mowell; Peoples Counsel
Subject: RE: Atkinson 18-194-X Day 3

Ms. Cannington,

We are available for all of the dates with the exception of September 4.

Thank you,

Adam M. Rosenblatt, Esq. | Venable LLP
t 410.494.6271 | f 410.821.0147 | m 410.294.9430
210 W. Pennsylvania Avenue, Suite 500, Towson, MD 21204

AMRosenblatt@Venable.com | http://secure-web.cisco.com/1OPQVPrVuSZEKG9bmw240GAmIY0pDwLfHAVfJRCL92ltLG6sT6Yroz5o61US0YeULyo3uAAqEmHjG8cnz_NWL9fXUElbytj1_eZaStidKyQz9nlPwKKkSVCDbNITw9ftivf9xtnYfSfqzmN30Pb2GhythRhdR0eExjqkYXQ6UhRME9hKV8c5vJJ8lOL2mtZyxleoUh_mEGneZ5q7-X51Nec8PYpWTkkBKFxzJbaOZqfvWi-OGnlYtRuLJCMYMqtbYeMZckdEJxHl-r1ARjrcWkRcZeiEhxGEcEBJD1drymHTsXDWre45YzDQtj1Q2qTRmLoJczxmTK8r_uAJDpWoLtH_Qpk7Dp2kYOuuneYHv5U-1pJcLP8lHos8VEJcpfs_Ag0szQ99amQuiK6bGz4mRiuM_RTUfsAcYcMQ3DaWL2C44ZCfQlr-zJEPkqmfrpU8fpMbKGi0ZLqH0n9Rk3W0Yyhg/http%3A%2F%2Fwww.Venable.com

From: Krysundra Cannington [mailto:kcannington@baltimorecountymd.gov]
Sent: Thursday, July 26, 2018 11:04 AM
To: Malone, Patricia A. <PAMalone@Venable.com>; Rosenblatt, Adam M. <AMRosenblatt@Venable.com>; barney Mowell <barneymowell@hotmail.com>; Peoples Counsel <peoplescounsel@baltimorecountymd.gov>
Subject: Atkinson 18-194-X Day 3

Good morning Counsel,

In an effort to schedule Day 3 in the Atkinson matter with minimal delay, I offer the following dates: September 4, 13, 25, October 9, or 30.

Please advise no later than Wednesday August 1, 2018 as to your availability.

Thank you,

Krysundra Cannington

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Monday, July 30, 2018 1:44 PM
To: Krysundra Cannington; Malone, Patricia A.; barney Mowell; Peoples Counsel
Subject: RE: Atkinson 18-194-X Day 3

Ms. Cannington,

We are available for all of the dates with the exception of September 4.

Thank you,

Adam M. Rosenblatt, Esq. | Venable LLP
t 410.494.6271 | f 410.821.0147 | m 410.294.9430
210 W. Pennsylvania Avenue, Suite 500, Towson, MD 21204

AMRosenblatt@Venable.com | http://secure-web.cisco.com/1qxmBoI7XLriQRCKZJLBwgMuJ1iCV7BjDYZMEvESGD49pZhiJOXHM0lW_6dWP5XW-O8v2lEq6T6Yy6r6KVmcgvZz3rv4bDJN40BnS2LeC2fRutouEdEzBjf24ZM4ues2cLPQck72CdEnVG4y66Yw_c0yojtmUjx2aRAtlKKRd7XsLDRjXxHfR6zNK1eZ9mm6E8obcEErVQK60enc9XPpSQVg-akNLjF_yxufZxA3vq_NDSvT4acN0WxGN_ZiCssfjQOkvePXIPzJ8DwqKOGWUPLgAWEH-rg3GDcABcXd1xH_Flck54thW3JqBP-1Tpcg5DCg1M1lbxyz-id6Y4aPCBloeCVSDzAJKsKd5XSYaMVEmgJg2M3TXEtc_8vWundY7cykGzDlufXf-xfhCTNzUMozAdgwvc_HQDltNOOUnfy1F-TbnTP4Kg804qmiAjSKLWooKD14CzPhSl7F91n301w/http%3A%2F%2Fwww.Venable.com

From: Krysundra Cannington [mailto:kcannington@baltimorecountymd.gov]
Sent: Thursday, July 26, 2018 11:04 AM
To: Malone, Patricia A. <PAMalone@Venable.com>; Rosenblatt, Adam M. <AMRosenblatt@Venable.com>; barney Mowell <barneymowell@hotmail.com>; Peoples Counsel <peoplescounsel@baltimorecountymd.gov>
Subject: Atkinson 18-194-X Day 3

Good morning Counsel,

In an effort to schedule Day 3 in the Atkinson matter with minimal delay, I offer the following dates: September 4, 13, 25, October 9, or 30.

Please advise no later than Wednesday August 1, 2018 as to your availability.

Thank you,

Sunny

Krysundra "Sunny" Cannington
Administrator
Board of Appeals of Baltimore County
The Jefferson Building, Suite 203
105 W. Chesapeake Avenue
Towson, MD 21204
Phone: 410-887-3180
Fax: 410-887-3182

Confidentiality Statement

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Friday, July 27, 2018 2:18 PM
To: Krysundra Cannington
Cc: AMrosenblatt@Venable.com; Malone, Patricia A. (PAMalone@Venable.com); barneymowell@hotmail.com; Lynne Jones
Subject: Atkinson/OneEnergy zoning case, No. 2018-194-X, 632 Freeland Road, Resumption of Hearing, to be Scheduled

Dear Ms. Cannington,

Upon communication relating to the scheduling situation with Lynne Jones, one of the protestants, and Mr. Mowell, there has come to my attention new information which it appears appropriate to bring to the attention of the Board and the parties with all deliberate speed.

In this context, it is in the nature of a *de novo* hearing that plans for the number and type of witnesses may change in light of the *de novo* presentation by Petitioners and the thought process on response.

Based on the way this *de novo* hearing evolved on July 24th and July 25th, I am informed that Protestants now anticipate it likely there may or will be at least 3 more witnesses, in addition to the number 4 mentioned by Mr. Mowell, to present information they believe will be relevant and not cumulative. This means a total of at least 7 witnesses now anticipated for Protestants. This is my understanding at this time, subject to modification or correction by Ms. Jones and/or Mr. Mowell.

In other words, it should be assumed there will be more witnesses than originally anticipated, so there should be no surprise on that score to anyone.

In addition, in light of the evolution of the case, evidentiary issues with respect to the soils, and the Board's rejection of People's Counsel's Exhibit 10, our office is considering providing additional evidence, whether by witness and/or additional documents.

This information should be helpful to the Board as it schedules the resumption of proceedings in the autumn.

Thank you for your continuing attention to the scheduling of this case. We will continue to keep the Board advised relating to scheduling so that the case can proceed as expeditiously and fairly as reasonably possible.

Sincerely, Peter Max Zimmerman, People's Counsel, 410 887-2188

Krysundra Cannington

From: Krysundra Cannington
Sent: Thursday, July 26, 2018 11:04 AM
To: Malone, Patsy; Adam Rosenblatt Esquire; 'barney Mowell'; Peoples Counsel
Subject: Atkinson 18-194-X Day 3

Good morning Counsel,

In an effort to schedule Day 3 in the Atkinson matter with minimal delay, I offer the following dates: September 4, 13, 25, October 9, or 30.

Please advise no later than Wednesday August 1, 2018 as to your availability.

Thank you,

Sunny

Krysundra "Sunny" Cannington
Administrator
Board of Appeals of Baltimore County
The Jefferson Building, Suite 203
105 W. Chesapeake Avenue
Towson, MD 21204
Phone: 410-887-3180
Fax: 410-887-3182

Confidentiality Statement

This electronic mail transmission contains confidential information belonging to the sender which is legally privileged and confidential. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or taking of any action based on the contents of this electronic mail transmission is strictly prohibited. If you have received this electronic mail transmission in error, please immediately notify the sender.

RECEIVED
JUL 25 2018
BALTIMORE COUNTY
BOARD OF APPEALS

H. BARNES MOWELL, P.A.
Attorney At Law
16925 York Road
Monkton, Maryland 21111
Phone: 410-329-6488 Fax: 410-357-4663
barneymowell@hotmail.com
July 23, 2018

Board of Appeals of Baltimore County
105 W. Chesapeake Avenue
Suite 203
Towson, Maryland 21204

Via e-mail and regular mail

Re: In the Matter of: Charles Gary Atkinson & Stephen Gordon Atkinson - Legal Owners
OneEnergy Development, LLC - Lessee
632 Freeland Road
7th Election District; 3rd Councilmanic District
Case No: 18-194-X
Hearing Dates: July 24, 2018 and July 25, 2018 at 10 a.m.

Ladies and Gentlemen:

I have enclosed, for filing, a preliminary Motion on behalf of the Protestants in the captioned case.

Thank you for your cooperation in this regard.

Very truly yours,

H. Barnes Mowell

Certificate of Service

I HEREBY CERTIFY that a copy of this letter and Motion were e-mailed and mailed by first class mail this 23rd day of July 2018 to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204 and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

H. Barnes Mowell

RECEIVED
JUL 25 2018
BALTIMORE COUNTY
BOARD OF APPEALS

IN THE MATTER OF CHARLES GARY ATKINSON AND STEPHEN GORDON ATKINSON – LEGAL OWNERS; ONE ENERGY DEVELOPMENT, LLC –LESSEE; 632 FREELAND ROAD	*	BEFORE THE
	*	BOARD OF APPEALS
	*	OF
	*	BALTIMORE COUNTY
7th Election District 3rd Council District	*	
	*	CASE NO: 18-194-X

* * * * * * *

MOTION TO DISMISS PETITION OR TO REMAND TO OFFICE OF ADMINISTRATIVE HEARINGS

The Protestants, by their attorney H. Barnes Mowell, move to either dismiss the Petition for Special Exception in this case, or to remand the case back to the Office of Administrative Hearings, for the following reasons:

Section 32-3-302 (b) of the Baltimore County Code sets forth the notice requirements when a Petition for Variance or Special Exception is filed. Before the requirements were changed by Bill No. 6-18, enacted by the County Council on February 5, 2018, Section 32-3-302 (b) read as follows:

(b) Notice.

(1) The Department of Permits, Approvals and Inspections shall ensure that notice of the time and place of the hearing relating to the property under petition be provided:

(i) By conspicuously posting the notice on the property for a period of at least 20 days before the date of the hearing;

(ii) By a notice in at least one newspaper of general circulation at least 20 days before the hearing; and

(iii) By posting notice on the county's internet website.

Bill No. 6-18 strengthens the notice requirements, by requiring two signs to be posted, two certifications of posting to be filed, and by specifying the size of the signs. Section Two of

the Bill states that *...the requirements of this Act shall not apply to any Zoning Petition or Hearing Officers Hearing filed and scheduled for a hearing prior to the effective date of this Act.* Section Three says that the Bill ... *shall take effect on March 19, 2018.*

The hearing for this case was scheduled for March 30, 2018. The only notice posted for the hearing was placed on Oakland Road, and not at the property address of 632 Freeland Road. A photo of the sign is attached hereto as Exhibit 1. As set forth in the Affidavit of Kathleen Pieper, attached hereto as Exhibit 2, there was no notice of the hearing on the County's internet website. On March 28th, two days before the hearing, Ms. Pieper requested that the hearing be postponed because of the improper sign placement, and lack of notice on the county website. On March 29th, Judge Beverungen denied the request, stating that the notice requirements in the new bill did not apply. (See postponement request and response attached hereto as Exhibit 3).

In Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950), the Supreme Court summarized the due process requirements of a hearing notice:

"An elementary and fundamental requirement of due process in any proceeding which is to be accorded finality is notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections."

In Cassidy v. County Board of Appeals of Baltimore County, 218 Md. 418, 421 (1958), the Maryland Court of Appeals stressed the importance of providing notice of a hearing:

"It has been stated so frequently and so generally that the failure of an administrative official or board to give a proper notice of a hearing, required by law, is fatal to the jurisdiction of the official or the board to conduct the hearing that it requires no citation of authority to support the proposition."

The Court of Special Appeals has cited Cassidy for the proposition that:

"The failure of an administrative official or board to give a proper notice of a hearing, required by law, prevents the official or board from conducting a valid hearing." Baltimore Street Parking Company, LLC v. Mayor & City Council of Baltimore, 194 Md. App. 569, 593 (2010).

In Baker v. Montgomery County Council, 241 Md. 178 (1966), an application was filed to reclassify a 32 acre tract of land from an R-90 zone to an R-20 zone. When the application was granted by Montgomery County, several neighbors appealed to the Circuit Court. After losing at that level, the neighbors appealed again, to the Court of Special Appeals. That Court agreed with the neighbor's argument that the notice requirements of the County Code had not been followed. The Code required a sign to be posted at the property. It required additional signs to be posted, however, if the parcel of land was five acres or more and abutted more than one road, as this one did. The property owner admitted that only one sign had been posted, but argued that the notice given, which included a notice in the newspaper, was sufficient, and was substantial compliance with the notice requirements. The circuit court had accepted that argument, but the Court of Special Appeals did not. The Court said:

"As to whether the application for rezoning complied with the procedural requirements of the county code, we agree with the contention of the appellants that the application was void in that it failed to comply with certain of the mandatory provisions of the zoning law." *Id* at 183.

The Court continued:

"In its supplemental opinion, the lower court, in ruling on the merits of the appeal, found that there had been substantial compliance with the statutory requirements, despite the provisions of § 104-4 that 'the word 'shall' is mandatory and not optional.' Since more than substantial compliance with the zoning laws is required, it is apparent that the applicant violated an obligatory requirement by not erecting the requisite number of signs. Accordingly the lower court should have reversed the action of the district council in granting the reclassification". *Id* at 184.

The Baker case is identical to the instant case. Baltimore County Code Section 32-3-302 uses the word "shall". The notice requirements are mandatory, and not optional. Because no notice was given on the county's internet website, and because the sign was not "conspicuously" posted on the property, the mandatory notice requirements of Section 32-3-302 have not been met. Following the holding in Baker, the Petition for Special Exception is void, and should either

be dismissed, or remanded to the Office of Administrative Hearings so that proper notice can be given of a new hearing.

H. Barnes Mowell, P.A.
16925 York Road
Monkton, Maryland 21111
410-329-6488
barneymowell@hotmail.com

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing was e-mailed and mailed this 23rd day of July to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204 and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

.

H. Barnes Mowell

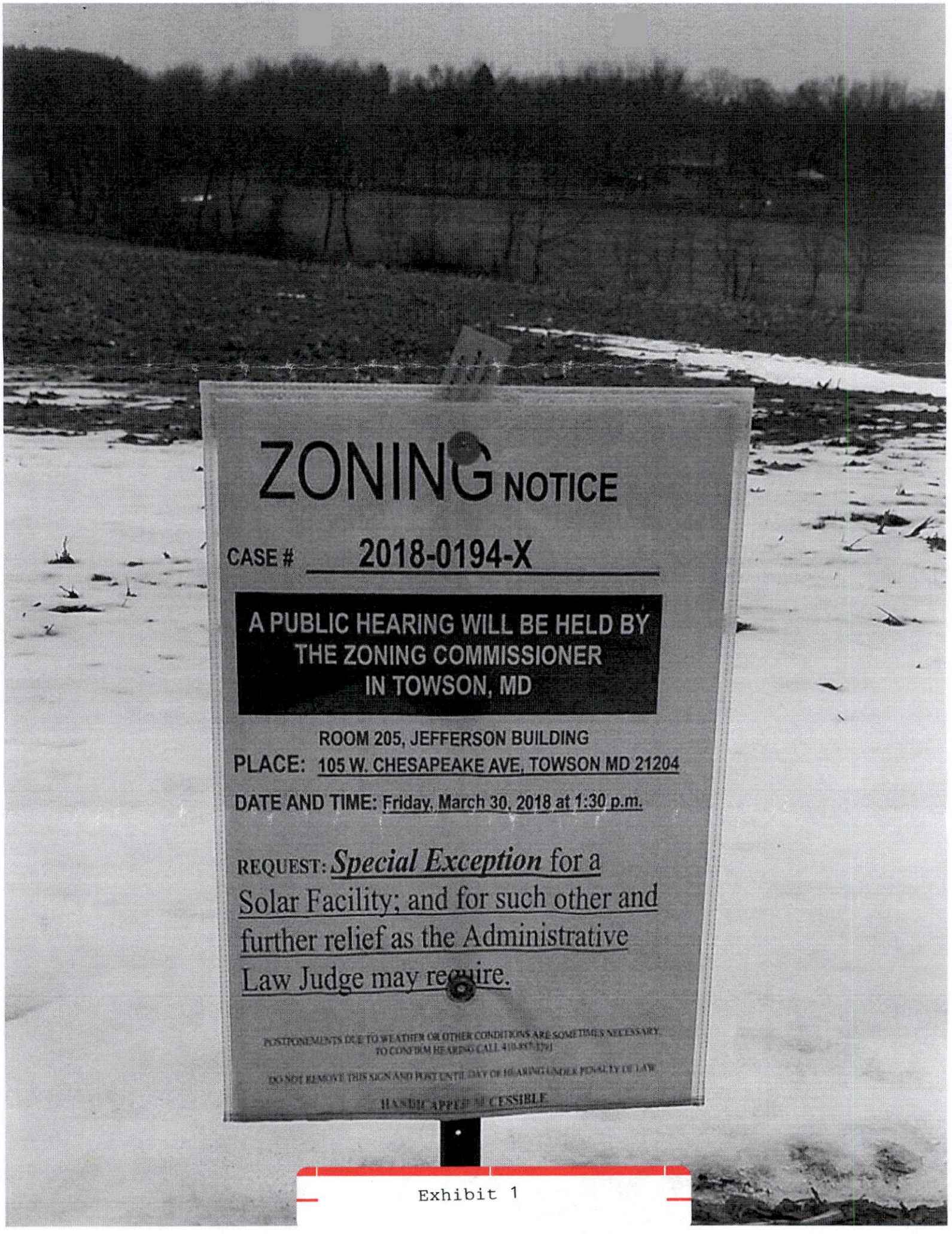

ZONING NOTICE
CASE # 2018-0194-X
A PUBLIC HEARING WILL BE HELD BY THE ZONING COMMISSIONER IN TOWSON, MD
ROOM 205, JEFFERSON BUILDING
PLACE: 105 W. CHESAPEAKE AVE, TOWSON MD 21204
DATE AND TIME: Friday, March 30, 2018 at 1:30 p.m.
REQUEST: Special Exception for a Solar Facility; and for such other and further relief as the Administrative Law Judge may require.
POSTPONEMENTS DUE TO WEATHER OR OTHER CONDITIONS ARE SOMETIMES NECESSARY.
DO NOT REMOVE THIS SIGN AND POST UNTIL DAY OF HEARING UNDER PENALTY OF LAW

Exhibit 1

IN THE MATTER OF CHARLES GARY ATKINSON AND STEPHEN GORDON ATKINSON – LEGAL OWNERS; ONE ENERGY DEVELOPMENT, LLC –LESSEE 632 FREELAND ROAD	*	BEFORE THE
	*	BOARD OF APPEALS
	*	OF
	*	BALTIMORE COUNTY
7th Election District 3rd Council District	*	
	*	CASE NO: 18-194-X

* * * * * * *

AFFIDAVIT OF KATHLEEN PIEPER

1. I, Kathleen Pieper, am over the age of eighteen years, and am competent to testify.

2. Since passage of Bill 37-17, the Baltimore County Solar Facilities law, I routinely review the Baltimore County Government website, looking for zoning activity related to BG&E Community Solar Pilot Applications within Baltimore County District 3. I never saw on the County website any notice concerning a hearing for this case, concerning a solar facility at 632 Freeland Road.

3. Early in the week of March 25, 2018, I noticed a social media post from someone with a photo of a zoning sign for this case, case # 2018-0194-X, indicating that they found the sign on Oakland Road in Freeland, and asking if anyone had any information about it. Not having seen anything on the County government website, I immediately checked the on-line calendar for Baltimore County Zoning Meetings and Hearings on https://www.baltimorecountymd.gov.

4. Nothing was listed for this case, and there was no notice of a hearing on March 30, 2018. As a result, I wrote to the Administrative Law Judge on March 28th, 2018 and requested a postponement.

I solemnly affirm under the penalties of perjury and upon personal knowledge that the contents of the foregoing Affidavit are true.

Kathleen Pieper

Exhibit 2

Kathleen Pieper

From: Kathleen Pieper
Sent: Wednesday, March 28, 2018 5:14 PM
To: 'jbeverungen@baltimorecountymd.gov'
Subject: Case No. 2018-0194-X
Attachments: Notice of Adminstrative Hearings.pdf

Dear ALJ Beverungen,

This is a request to postpone the special exception hearing scheduled for 3/30/2018 at 1:30pm on Case No. 2018-0194-X due to insufficient community notice and holiday conflict with community input.

Notice to the community is in conflict with several requirements of Bill 6-18 (attached).

- There are no signs posted at the property address: 632 Freeland Road, Freeland, MD. We recently discovered there is a sign posted over a quarter of a mile back along a side road, Oakland Road, and it is smaller than the required size. Bill 6-18 requires that *"The signs shall be placed within view of a public road where possible and the signs shall measure at least 24" by 36" in size".*

- The hearing has not been listed nor is it currently listed on the Zoning and Development Hearings Calendar webpage or Community Update Newsletter. Bill 6-18 requires: *"posting notice on the county's internet website, including the Zoning and Hearings Calendar and Community Update Newsletter webpages, at least 15 days prior to the hearing".*

March 30, 2018 is a significant Christian holiday, Good Friday. Many individuals in our communities that would like to testify at this hearing are unable to attend due to previous holiday weekend plans. This conflict was exacerbated by insufficient community notice.

If there was ever a situation which exemplifies why Bill 6-18 was needed, this is it.

We would appreciate your postponement of this hearing to enable proper community input.

Kathleen Pieper
President, North County Community Group and
Member, Freeland Legacy Alliance

Exhibit 3

Kathie Pieper

From:	John E. Beverungen <jbeverungen@baltimorecountymd.gov>
Sent:	Thursday, March 29, 2018 2:06 PM
To:	arosenblatt@venable.com; reneehamidi@gmail.com; kathie@stoneponyrestoration.com
Cc:	Debra Wiley; Sherry Nuffer
Subject:	Case No. 2018-0194-X

The above case is scheduled for hearing on Friday March 30, 2018 at 1:30 p.m. Ms. Hamidi and Ms. Pieper filed (via e-mail) with the Office of Administrative Hearings (OAH) requests to postpone the hearing.

The postponement requests will be denied. Both e-mails referenced Bill No. 6-18, pertaining to notice requirements for administrative hearings. The above case was filed and scheduled before the effective date (i.e., March 19, 2018) of that Bill; as such, pursuant to Section 2 of the Bill, that law does not apply in this case. One e-mail noted that the hearing date falls on a "religious holiday." While that may be the case, it is not a Baltimore County government holiday, and government offices (including the OAH) will be open on Friday March 30.

John Beverungen
ALJ



CONNECT WITH BALTIMORE COUNTY



www.baltimorecountymd.gov

Board of Appeals of Baltimore County

JEFFERSON BUILDING
SECOND FLOOR, SUITE 203
105 WEST CHESAPEAKE AVENUE
TOWSON, MARYLAND, 21204
410-887-3180
FAX: 410-887-3182

May 24, 2018

NOTICE OF ASSIGNMENT

IN THE MATTER OF: Charles Gary Atkinson and Stephen Gordon Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
18-194-X 632 Freeland Road
7th Election District; 3rd Councilmanic District

Re: Petition for Special Exception pursuant to the BCZR Section 4E-102 for a solar facility on property zoned RC-2.

4/3/18 Opinion and Order of the Administrative Law Judge wherein the Petition for Special Exception was GRANTED, subject to conditions.

ASSIGNED FOR: **JULY 24, 2018, AT 10:00 A.M. – Day 1**
JULY 25, 2018, AT 10:00 A.M. – Day 2

LOCATION: Hearing Room #2, Second Floor, Suite 206
Jefferson Building, 105 W. Chesapeake Avenue, Towson

NOTICE:

- This appeal is an evidentiary hearing. Parties should consider the advisability of retaining an attorney.
- Please refer to the Board's Rules of Practice & Procedure, Appendix B, Baltimore County Code.
- No postponements will be granted without sufficient reasons; said requests must be in writing and in compliance with Rule 2(b) of the Board's Rules. No postponements will be granted within 15 days of scheduled hearing date unless in full compliance with Rule 2(c).
- If you have a disability requiring special accommodations, please contact this office at least one week prior to hearing date.
- Parties must file one (1) original and three (3) copies of all Motions, Memoranda, and exhibits (including video and PowerPoint) with the Board unless otherwise requested.
- Projection equipment for digital exhibits is available by request. A minimum of forty-eight (48) hours-notice is required. Supply is limited and not guaranteed.

For further information, including our inclement weather policy, please visit our website www.baltimorecountymd.gov/Agencies/appeals/index.html

Krysundra "Sunny" Cannington
Administrator

c:	Counsel for Petitioner/Legal Owner	: Adam M. Rosenblatt, Esquire
	Petitioner/Legal Owner	: Charles Atkinson and Stephen Atkinson
	Lessee	: OneEnergy Development, LLC
	Counsel for Protestants	: H. Barnes Mowell, Esquire
	Protestants	: Freeland Legacy Alliance, Inc, Bobby Rohe, Don and Nadine Lentz, John Altmeyer, Ronald Danielson, Matt Hubbard, Connie Wood, Bob Clark, Slave Schener, Richard Ryan, Lois Bowman, Scott Dykes, Beverly and Salvatore Scavone, Theresa and Christopher Norton, Kathleen and Christopher Marciniak, Christine Pignataro, Laverne Poe, Diana Householder, Theresa Sassler, Paul and Linda Hoeckel, Beverly Kram, Rhonda William Rollins, Ed and Debra Myslinski, Lynne Jones, Debbie Frank, Patricia Trump, Kathleen Pieper, Robin Arrington, Teresa Moore

Andrea Van Arsdale, Director/Department of Planning
Arnold Jablon, Director/PAI
Lawrence M. Stahl, Managing Administrative Law Judge
Michael Field, County Attorney, Office of Law
Nancy West, Assistant County Attorney
Office of People's Counsel

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Monday, July 23, 2018 3:28 PM
To: Krysundra Cannington
Cc: barneymowell@hotmail.com; AMrosenblatt@Venable.com
Subject: Notice issues, Atkinson case

Dear Ms. Cannington,

I inadvertently pressed the send button before completing review of the issue.

I meant to add that there is no dispute that the property was posted at the location near the solar array and that there was proper newspaper notice.

There is therefore an argument for substantial compliance in context, even if there were no internet notice.

The case by now has received substantial public attention in the area.

Under all the circumstances, our office is satisfied to go ahead with the hearing on the merits.

We take no position on Protestants' motion.

Sincerely,

Peter Max Zimmerman, People's Counsel

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Monday, July 23, 2018 3:16 PM
To: Krysundra Cannington
Cc: barneymowell@hotmail.com; AMrosenblatt@Venable.com
Subject: Preliminary observations on the notice issue in the Atkinson case, No. 2018-194-X, 632 Freeland Road

Dear Ms. Cannington,

To assist the County Board of Appeals as it reviews the Motion to Dismiss filed by Protestants, along with Petitioners' response, I offer these preliminary observations:

1. The notice issue is jurisdictional and may be raised at any time, per Cassidy v. County Board of Appeals 218 Md. 418 (1958). It was raised at the ALJ hearing. It has been raised again here. While the CBA hearing is *de novo*, the CBA still exercises appellate jurisdiction. UPS v. People's Counsel 336 Md. 569 (1993). The only public notice required occurs at the ALJ level. If there were a notice problem there, it affects this appeal.

2. The effective date of Bill 6-18 is irrelevant. Baltimore County Code Sec. 32-3-302(a), as it read for many years prior to Bill 6-18, required, a hearing for a variance or a special exception. Continuing, Sec. 32-3-302(b) required, among other things, that the property be posted and that there be notice on the county website.

   Our research reveals that the County Council added the internet notice requirement in 2012, with the enactment of Bill 15-12. We will supply a copy.

   Bill 6-18 amended the law further to require 2 signs instead of 1, with further details on size and location (32-3-302(b)(1)(i)). Bill 6-18 also provided additional details for the already existing requirement for "posting notice on the county's internet website." (32-3-302(b)(1)(iii)).

   Otherwise stated, the relevant notice requirements predated Bill 6-18. Therefore, the arguments made in the motion do not depend on Bill 6-18. We will supply copies of the Code prior to Bill 6-18, as well as the Bill itself.

3. It is irrelevant that some citizens found out about the hearing and attended. If the notice was is determined to be inadequate, then, first of all, it is a jurisdictional problem; and secondly, it is unknown which citizens were or are unaware of the proceedings and might have participated or might still participate. It is unknown what is not known about who had actual notice.

4. To understand the situation better, undersigned People's Counsel reviewed the Board file.

   There are in the file the e-mail requests for postponement of the ALJ Hearing from Kathleen Pieper and Renee Hamidi to ALJ Bevuerungen dated March 28, 2018, prior to the March 30, 2018 hearing. Ms. Pieper sent a supplemental e-mail on March 29. There is the March 29, 2018

response from Adam R[illegible]blatt, Petitioners' counsel. There is A[illegible]everungen's denial of the postponement the same day.

There are also in the file the standard certificate of posting of the sign for 632 Freeland Road, with a photograph, albeit posted on Oakland Road, and the attorney's certification of notice in the Jeffersonian. But there is no certification or evidence of internet notice.

The file also contains a form for Baltimore County's "Advertising Requirements and Procedures for Zoning Hearings" form pertaining to this case. This refers to the posting of the property and the newspaper notice, but not the internet notice.

5. Kathleen Pieper's e-mail objected to the posting location on Oakland Road and to the lack of internet notice. She mentioned Bill 6-18. Renee Hamidi's email focused on the lack of internet notice. She did not mention Bill 6-18. There does not appear to be any documented factual denial of their assertions at the time. There is nothing in the file transferred from the ALJ office to indicate there was internet notice online at the time.

   Kathleen Pieper has backed her March 28, 2018 e-mail with her affidavit attached to Protestants' motion. This is the only affidavit on the subject, so far as we can tell.

6. Petitioners' counsel's March 29, 2018 e-mail response to Ms. Pieper's request for postponement of the ALJ hearing argued Bill 6-18 is inapplicable. (But even if it is inapplicable, the notice issues do not depend on Bill 6-18, as stated above.) Petitioners' e-mail also argued, as repeated here, that Ms. Pieper and/or others had actual notice and participated. This may be true for them, but not for the public in general.

7. Petitioners' March 29, 2018 e-mail opposition to the postponement request about the ALJ hearing relies on the posting and newspaper notice, along with "actual notice" reflected in the postponement requests, but does not mention or attach any requirement or copy of a county website notice.

8. ALJ Beverungen's denial of the postponement request was based on the inapplicability of Bill 6-18. But, as we have seen, the notice issues arise in any event based on County Code Sec. 32-3-302 as it read prior to Bill 6-18. Moreover, Ms. Hamidi did not base her request on Bill 6-18, but rather on the lack of internet notice.

9. Petitioners have for the first time attached to their opposition here an apparent County internet document mentioning the March 30. 2018 hearing date. It is, however, dated July 23, 2018. It does not give any description of the nature of the case. It does not give the place of the hearingThis contrasts with the zoning sign and newspaper advertisement, which do describe the nature of the case and the location of the hearing.

I trust that the Board and the parties will find these observations helpful as background for tomorrow's hearing.

Sincerely,

Peter Max Zimmerman, People's Counsel 410 887-2188

IN THE MATTER OF: **CHARLES AND STEPHEN ATKINSON** **LEGAL OWNERS**	*	**BEFORE THE** **BOARD OF APPEALS**
PETITIONS FOR **SPECIAL EXCEPTION**	*	**OF**
7th Election District **3rd Council District**	*	**BALTIMORE COUNTY** **Case No. 2018-194-X**

RECEIVED
JUL 23 2018
BALTIMORE COUNTY
BOARD OF APPEALS

* *

OPPOSITION TO MOTION TO DISMISS

Petitioners, Charles and Stephen Aktinson and OneEnergy Development, LLC, by undersigned counsel, hereby oppose the Motion to Dismiss filed by H. Barnes Mowell and state as follows:

1. It is clear that Mr. Mowell is resorting to frivolous litigation tactics in an attempt to delay the above-captioned matter.

2. This is evident from his request for postponement, which was promptly denied by the Board of Appeals (the "Board"), and his filing of this Motion on the day before the hearing is set to begin.

3. Mr. Barnes' client filed a nearly identical motion on the day before the hearing was scheduled before the Office of Administrative Hearings. Attached hereto is correspondence from the Protestants, the counter argument of opposing counsel, and the ruling of the Administrative Law Judge.

4. Quite simply, this case is not subject to the requirements of Bill 6-18. Section 2 of Bill 6-18 states that "the requirements of this Act shall not apply to any zoning petition or

hearing officers hearing filed and scheduled for a hearing prior to the effective date of this Act." Section 3 states that the effective date of the Bill is March 19, 2018.

5. As the ALJ property recognized, this petition was filed on January 25, 2018, and the Hearing Notice was dated February 23, 2018. This case was therefore not filed or scheduled after the effective date of Bill 6-18.

6. Additionally, the Board's file will reflect that a sign was posted on the property on March 10, 2018 (directly in front of the proposed location of the solar array) and that the hearing was advertised in a local newspaper as required for zoning cases filed and scheduled prior to March 19, 2018. The hearing was also advertised on the County website, as confirmed by the attached printout from the County's development calendar.

7. The various notices served their purpose as the Protestants filed a pre-hearing motion before the ALJ and attended the hearing to oppose the requested relief. Their actions demonstrate "actual notice" of the ALJ hearing.

8. The Board should deny Mr. Mowell's Motion today without taking up even one minute of tomorrow's scheduled hearing to discuss this frivolous claim. Indeed, the case is being heard *de novo* by the Board, and the Board has its own notice requirements that were fulfilled by the Board's administrator prior to the July 24-25 hearings.

CONCLUSION

For the foregoing reasons, the Board should deny Mr. Mowell's Motion prior to the hearing so that the case can proceed as scheduled without being sidetracked by litigation tactics.

Respectfully submitted,

Adam M. Rosenblatt
Patricia A. Malone
Venable LLP
210 W. Pennsylvania Ave., Suite 500
Towson, Maryland 21204
(410) 494-6271

CERTIFICATE OF SERVICE

I hereby certify on this 23rd day of July, 2018, that a copy of the foregoing pleading with attachments was emailed and mailed to H. Barnes Mowell, P.A. 16925 York Road, Monkton, Maryland 21111 and Peter M. Zimmerman, Office of People's Counsel, 105 W. Chesapeake Avenue, Room 204, Towson, MD 21204.

Adam M. Rosenblatt

Rosenblatt, Adam M.

To: Rosenblatt, Adam M.
Subject: RE: Case No. 2018-0194-X

From: John E. Beverungen [mailto:jbeverungen@baltimorecountymd.gov]
Sent: Thursday, March 29, 2018 2:06 PM
To: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>; reneehamidi@gmail.com; kathie@stoneponyrestoration.com
Cc: Debra Wiley <dwiley@baltimorecountymd.gov>; Sherry Nuffer <snuffer@baltimorecountymd.gov>
Subject: Case No. 2018-0194-X

The above case is scheduled for hearing on Friday March 30, 2018 at 1:30 p.m. Ms. Hamidi and Ms. Pieper filed (via e-mail) with the Office of Administrative Hearings (OAH) requests to postpone the hearing.

The postponement requests will be denied. Both e-mails referenced Bill No. 6-18, pertaining to notice requirements for administrative hearings. The above case was filed and scheduled before the effective date (i.e., March 19, 2018) of that Bill; as such, pursuant to Section 2 of the Bill, that law does not apply in this case. One e-mail noted that the hearing date falls on a "religious holiday." While that may be the case, it is not a Baltimore County government holiday, and government offices (including the OAH) will be open on Friday March 30.

John Beverungen
ALJ

CONNECT WITH BALTIMORE COUNTY

www.baltimorecountymd.gov

Rosenblatt, Adam M.

From: Rosenblatt, Adam M.
Sent: Thursday, March 29, 2018 12:41 PM
To: 'John E. Beverungen'
Subject: RE: Case No. 2018-0194-X

Judge Beverungen,

Thank you for forwarding this correspondence. To briefly respond, we are aware of Bill 6-18 and the additional requirements for advertising and posting of future zoning and development hearings. However, the Bill does not apply to Case No. 2018-0194-X.

Section 2 of Bill 6-18 states that "the requirements of this Act shall not apply to any zoning petition or hearing officers hearing filed and scheduled for a hearing prior to the effective date of this Act." Section 3 states that the effective date of the Bill is March 19, 2018.

As your file will reflect, this petition was filed on January 25, 2018, and the Hearing Notice was dated February 23, 2018. This case was therefore not filed or scheduled after the effective date of Bill 6-18.

Additionally, Rule 4G of the Rules of Practice and Procedure before the Zoning Commissioner states that requests for postponement shall not be granted "except in extraordinary circumstances" and for reasons of "an unusual and extraordinary nature." No such basis has even been alleged in this case.

The Petitioner is based on the west coast and several expert witnesses have already flown across the county to prepare for and testify at the hearing. It would cause a significant hardship if they were not entitled to proceed as scheduled tomorrow.

Your file will reflect that a sign was posted on the property on March 10, 2018 and that the hearing was advertised in a local newspaper as required for zoning cases filed and scheduled prior to March 19, 2018. The notice served its purpose as the postponement requests show "actual notice" of the scheduled hearing. For these reasons, we would respectfully request that the hearing proceed as scheduled tomorrow.

Thank you for your time and consideration,

Adam M. Rosenblatt, Esq. | Venable LLP
t 410.494.6271 | **f** 410.821.0147 | **m** 410.294.9430
210 W. Pennsylvania Avenue, Suite 500, Towson, MD 21204

AMRosenblatt@Venable.com | www.Venable.com

From: John E. Beverungen [mailto:jbeverungen@baltimorecountymd.gov]
Sent: Thursday, March 29, 2018 12:05 PM
To: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Subject: FW: Case No. 2018-0194-X

Below correspondence received by OAH yesterday.

From: Kathleen Pieper [mailto:kathie@stoneponyrestoration.com]
Sent: Wednesday, March 28, 2018 5:14 PM

To: John E. Beverungen <jbeverungen@baltimorecountymd.gov>
Subject: Case No. 2018-0194-X

Dear ALJ Beverungen,

This is a request to postpone the special exception hearing scheduled for 3/30/2018 at 1:30pm on Case No. 2018-0194-X due to insufficient community notice and holiday conflict with community input.

Notice to the community is in conflict with several requirements of Bill 6-18 (attached).

- There are no signs posted at the property address: 632 Freeland Road, Freeland, MD. We recently discovered there is a sign posted over a quarter of a mile back along a side road, Oakland Road, and it is smaller than the required size. Bill 6-18 requires that *"The signs shall be placed within view of a public road where possible and the signs shall measure at least 24" by 36" in size".*

- The hearing has not been listed nor is it currently listed on the Zoning and Development Hearings Calendar webpage or Community Update Newsletter. Bill 6-18 requires: *"posting notice on the county's internet website, including the Zoning and Hearings Calendar and Community Update Newsletter webpages, at least 15 days prior to the hearing".*

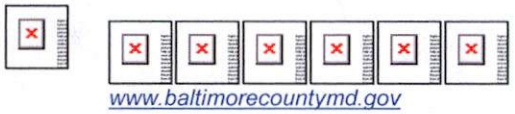
March 30, 2018 is a significant Christian holiday, Good Friday. Many individuals in our communities that would like to testify at this hearing are unable to attend due to previous holiday weekend plans. This conflict was exacerbated by insufficient community notice.

If there was ever a situation which exemplifies why Bill 6-18 was needed, this is it.

We would appreciate your postponement of this hearing to enable proper community input.

Kathleen Pieper
President, North County Community Group and
Member, Freeland Legacy Alliance

CONNECT WITH BALTIMORE COUNTY



www.baltimorecountymd.gov

Development, Zoning Hearings & Meetings

District 3

Location: -- All Event Locations --
2nd Council District
3rd Council District

Type: -- All Event Types --
Meeting
Meeting or Hearing

Keyword(s): Go

Previous	Mar 2018					Next
Select	25	26	27	28	1	2	3
Select	4	5	6	7	8	9	10
Select	11	12	13	14	15	16	17
Select	18	19	20	21	22	23	24
Select	25	26	27	28	29	30	31

Show Events By: Day Week Month RSS
RSS

Friday, March 30, 2018
Zoning Hearings - 632 Freeland Road 3rd Council District
1:30pm - 3:30pm

H. BARNES MOWELL, P.A.
Attorney At Law
16925 York Road
Monkton, Maryland 21111
Phone: 410-329-6488 Fax: 410-357-4663
barneymowell@hotmail.com
July 23, 2018

Board of Appeals of Baltimore County
105 W. Chesapeake Avenue
Suite 203
Towson, Maryland 21204

Via e-mail and regular mail

Re: In the Matter of: Charles Gary Atkinson & Stephen Gordon Atkinson - Legal Owners
OneEnergy Development, LLC - Lessee
632 Freeland Road
7th Election District; 3rd Councilmanic District
Case No: 18-194-X
Hearing Dates: July 24, 2018 and July 25, 2018 at 10 a.m.

Ladies and Gentlemen:

I have enclosed, for filing, a preliminary Motion on behalf of the Protestants in the captioned case.

Thank you for your cooperation in this regard.

Very truly yours,

H. Barnes Mowell

Certificate of Service

I HEREBY CERTIFY that a copy of this letter and Motion were e-mailed and mailed by first class mail this 23rd day of July 2018 to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204 and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

H. Barnes Mowell

IN THE MATTER OF CHARLES GARY ATKINSON AND STEPHEN GORDON ATKINSON – LEGAL OWNERS; ONE ENERGY DEVELOPMENT, LLC –LESSEE; 632 FREELAND ROAD	*	BEFORE THE
	*	BOARD OF APPEALS
	*	OF
	*	BALTIMORE COUNTY
7th Election District 3rd Council District	*	
	*	CASE NO: 18-194-X

* * * * * * *

MOTION TO DISMISS PETITION OR TO REMAND TO OFFICE OF ADMINISTRATIVE HEARINGS

The Protestants, by their attorney H. Barnes Mowell, move to either dismiss the Petition for Special Exception in this case, or to remand the case back to the Office of Administrative Hearings, for the following reasons:

Section 32-3-302 (b) of the Baltimore County Code sets forth the notice requirements when a Petition for Variance or Special Exception is filed. Before the requirements were changed by Bill No. 6-18, enacted by the County Council on February 5, 2018, Section 32-3-302 (b) read as follows:

(b) Notice.

(1) The Department of Permits, Approvals and Inspections shall ensure that notice of the time and place of the hearing relating to the property under petition be provided:

(i) By conspicuously posting the notice on the property for a period of at least 20 days before the date of the hearing;

(ii) By a notice in at least one newspaper of general circulation at least 20 days before the hearing; and

(iii) By posting notice on the county's internet website.

Bill No. 6-18 strengthens the notice requirements, by requiring two signs to be posted, two certifications of posting to be filed, and by specifying the size of the signs. Section Two of

the Bill states that *...the requirements of this Act shall not apply to any Zoning Petition or Hearing Officers Hearing filed and scheduled for a hearing prior to the effective date of this Act.* Section Three says that the Bill *... shall take effect on March 19, 2018.*

The hearing for this case was scheduled for March 30, 2018. The only notice posted for the hearing was placed on Oakland Road, and not at the property address of 632 Freeland Road. A photo of the sign is attached hereto as Exhibit 1. As set forth in the Affidavit of Kathleen Pieper, attached hereto as Exhibit 2, there was no notice of the hearing on the County's internet website. On March 28th, two days before the hearing, Ms. Pieper requested that the hearing be postponed because of the improper sign placement, and lack of notice on the county website. On March 29th, Judge Beverungen denied the request, stating that the notice requirements in the new bill did not apply. (See postponement request and response attached hereto as Exhibit 3).

In Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950), the Supreme Court summarized the due process requirements of a hearing notice:

"An elementary and fundamental requirement of due process in any proceeding which is to be accorded finality is notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections."

In Cassidy v. County Board of Appeals of Baltimore County, 218 Md. 418, 421 (1958), the Maryland Court of Appeals stressed the importance of providing notice of a hearing:

"It has been stated so frequently and so generally that the failure of an administrative official or board to give a proper notice of a hearing, required by law, is fatal to the jurisdiction of the official or the board to conduct the hearing that it requires no citation of authority to support the proposition."

The Court of Special Appeals has cited Cassidy for the proposition that:

"The failure of an administrative official or board to give a proper notice of a hearing, required by law, prevents the official or board from conducting a valid hearing." Baltimore Street Parking Company, LLC v. Mayor & City Council of Baltimore, 194 Md. App. 569, 593 (2010).

In Baker v. Montgomery County Council, 241 Md. 178 (1966), an application was filed to reclassify a 32 acre tract of land from an R-90 zone to an R-20 zone. When the application was granted by Montgomery County, several neighbors appealed to the Circuit Court. After losing at that level, the neighbors appealed again, to the Court of Special Appeals. That Court agreed with the neighbor's argument that the notice requirements of the County Code had not been followed. The Code required a sign to be posted at the property. It required additional signs to be posted, however, if the parcel of land was five acres or more and abutted more than one road, as this one did. The property owner admitted that only one sign had been posted, but argued that the notice given, which included a notice in the newspaper, was sufficient, and was substantial compliance with the notice requirements. The circuit court had accepted that argument, but the Court of Special Appeals did not. The Court said:

"As to whether the application for rezoning complied with the procedural requirements of the county code, we agree with the contention of the appellants that the application was void in that it failed to comply with certain of the mandatory provisions of the zoning law." *Id* at 183.

The Court continued:

"In its supplemental opinion, the lower court, in ruling on the merits of the appeal, found that there had been substantial compliance with the statutory requirements, despite the provisions of § 104-4 that 'the word 'shall' is mandatory and not optional.' Since more than substantial compliance with the zoning laws is required, it is apparent that the applicant violated an obligatory requirement by not erecting the requisite number of signs. Accordingly the lower court should have reversed the action of the district council in granting the reclassification". *Id* at 184.

The Baker case is identical to the instant case. Baltimore County Code Section 32-3-302 uses the word "shall". The notice requirements are mandatory, and not optional. Because no notice was given on the county's internet website, and because the sign was not "conspicuously" posted on the property, the mandatory notice requirements of Section 32-3-302 have not been met. Following the holding in Baker, the Petition for Special Exception is void, and should either

be dismissed, or remanded to the Office of Administrative Hearings so that proper notice can be given of a new hearing.

H. Barnes Mowell, P.A.
16925 York Road
Monkton, Maryland 21111
410-329-6488
barneymowell@hotmail.com

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing was e-mailed and mailed this 23rd day of July to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204 and to Peter Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

H. Barnes Mowell



ZONING NOTICE

CASE # 2018-0194-X

A PUBLIC HEARING WILL BE HELD BY THE ZONING COMMISSIONER IN TOWSON, MD

ROOM 205, JEFFERSON BUILDING

PLACE: 105 W. CHESAPEAKE AVE. TOWSON MD 21204

DATE AND TIME: Friday, March 30, 2018 at 1:30 p.m.

REQUEST: *Special Exception* for a Solar Facility; and for such other and further relief as the Administrative Law Judge may require.

[illegible]

[illegible]

[illegible]

Exhibit 1

IN THE MATTER OF CHARLES GARY ATKINSON AND STEPHEN GORDON ATKINSON – LEGAL OWNERS; ONE ENERGY DEVELOPMENT, LLC –LESSEE 632 FREELAND ROAD	*	BEFORE THE
	*	BOARD OF APPEALS
	*	OF
	*	BALTIMORE COUNTY
7th Election District 3rd Council District	*	CASE NO: 18-194-X

* * * * * * *

AFFIDAVIT OF KATHLEEN PIEPER

1. I, Kathleen Pieper, am over the age of eighteen years, and am competent to testify.

2. Since passage of Bill 37-17, the Baltimore County Solar Facilities law, I routinely review the Baltimore County Government website, looking for zoning activity related to BG&E Community Solar Pilot Applications within Baltimore County District 3. I never saw on the County website any notice concerning a hearing for this case, concerning a solar facility at 632 Freeland Road.

3. Early in the week of March 25, 2018, I noticed a social media post from someone with a photo of a zoning sign for this case, case # 2018-0194-X, indicating that they found the sign on Oakland Road in Freeland, and asking if anyone had any information about it. Not having seen anything on the County government website, I immediately checked the on-line calendar for Baltimore County Zoning Meetings and Hearings on https://www.baltimorecountymd.gov.

4. Nothing was listed for this case, and there was no notice of a hearing on March 30, 2018. As a result, I wrote to the Administrative Law Judge on March 28th, 2018 and requested a postponement.

I solemnly affirm under the penalties of perjury and upon personal knowledge that the contents of the foregoing Affidavit are true.

Kathleen Pieper

Exhibit 2

Kathleen Pieper

From:	Kathleen Pieper
Sent:	Wednesday, March 28, 2018 5:14 PM
To:	'jbeverungen@baltimorecountymd.gov'
Subject:	Case No. 2018-0194-X
Attachments:	Notice of Adminstrative Hearings.pdf

Dear ALJ Beverungen,

This is a request to postpone the special exception hearing scheduled for 3/30/2018 at 1:30pm on Case No. 2018-0194-X due to insufficient community notice and holiday conflict with community input.

Notice to the community is in conflict with several requirements of Bill 6-18 (attached).

- There are no signs posted at the property address: 632 Freeland Road, Freeland, MD. We recently discovered there is a sign posted over a quarter of a mile back along a side road, Oakland Road, and it is smaller than the required size. Bill 6-18 requires that *"The signs shall be placed within view of a public road where possible and the signs shall measure at least 24" by 36" in size"*.

- The hearing has not been listed nor is it currently listed on the Zoning and Development Hearings Calendar webpage or Community Update Newsletter. Bill 6-18 requires: *"posting notice on the county's internet website, including the Zoning and Hearings Calendar and Community Update Newsletter webpages, at least 15 days prior to the hearing"*.

March 30, 2018 is a significant Christian holiday, Good Friday. Many individuals in our communities that would like to testify at this hearing are unable to attend due to previous holiday weekend plans. This conflict was exacerbated by insufficient community notice.

If there was ever a situation which exemplifies why Bill 6-18 was needed, this is it.

We would appreciate your postponement of this hearing to enable proper community input.

Kathleen Pieper
President, North County Community Group and
Member, Freeland Legacy Alliance

Exhibit 3

Kathie Pieper

From:	John E. Beverungen <jbeverungen@baltimorecountymd.gov>
Sent:	Thursday, March 29, 2018 2:06 PM
To:	arosenblatt@venable.com; reneehamidi@gmail.com; kathie@stoneponyrestoration.com
Cc:	Debra Wiley; Sherry Nuffer
Subject:	Case No. 2018-0194-X

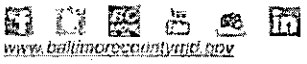
The above case is scheduled for hearing on Friday March 30, 2018 at 1:30 p.m. Ms. Hamidi and Ms. Pieper filed (via e-mail) with the Office of Administrative Hearings (OAH) requests to postpone the hearing.

The postponement requests will be denied. Both e-mails referenced Bill No. 6-18, pertaining to notice requirements for administrative hearings. The above case was filed and scheduled before the effective date (i.e., March 19, 2018) of that Bill; as such, pursuant to Section 2 of the Bill, that law does not apply in this case. One e-mail noted that the hearing date falls on a "religious holiday." While that may be the case, it is not a Baltimore County government holiday, and government offices (including the OAH) will be open on Friday March 30.

John Beverungen
ALJ



CONNECT WITH BALTIMORE COUNTY



www.baltimorecountymd.gov

Krysundra Cannington

From: Peter Max Zimmerman
Sent: Thursday, July 19, 2018 12:06 PM
To: Krysundra Cannington
Cc: AMrosenblatt@Venable.com; barneymowell@hotmail.com
Subject: Atkinson Case: 632 Freeland Road; CBA Case No. 2018-194-X

To Krysundra Cannington, County Board of Appeals Administrator

Dear Ms. Cannington,

After amicable discussion with Petitioner's attorney, Adam Rosenblatt, Esquire,
we have mutually agreed to withdraw the respective subpoenas filed in this case, the three by our office for Petitioners and the one filed by Petitioners for our office.

Upon further review, and in my view, this amicable mutual withdrawal will be consistent with the administration of justice. We look forward to the hearing scheduled Tuesday July 24 and Wednesday July 25.

Sincerely,

Peter Max Zimmerman, People's Counsel 410 887-2188

IN THE MATTER OF: **632 Freeland Road**	*	**BEFORE THE**
	*	**BOARD OF APPEALS**
PETITION FOR SPECIAL EXCEPTION	*	**OF**
7th Election District **3rd Council District**	*	**BALTIMORE COUNTY**
	*	
Legal Owners: Charles and Stephen Atkinson	*	**Case No. 2018-194-X**
Lessee: OneEnergy Development, LLC	*	

* *

SUBPOENA

STATE OF MARYLAND, BALTIMORE COUNTY TO WIT:

TO: Peter M. Zimmerman
105 W. Chesapeake Avenue, Room 204
Towson, MD 21204

YOU ARE HEREBY COMMANDED TO: ( ) Personally appear; ( ) Produce documents and/or objects only; (**X**) Personally appear and produce documents or objects; in **Hearing Room 2, The Jefferson Building, 105 W. Chesapeake Avenue, Towson, Maryland 21204 on July 24, 2018 at 10:00 a.m.**

YOU ARE COMMANDED TO produce the following documents or objects **(for general purpose as stated): (1) Any letters, e-mails or any other records related to communications with any of the appellants in the above-captioned matter; (2) Any letters, e-mails or any other communications with Barnes Mowell, Esq. related to this matter; (3) Any record that supports the authority of the Office of People's Counsel to participate in this matter.**

SUBPOENA REQUESTED BY:
Adam M. Rosenblatt
Venable LLP
210 W. Pennsylvania Avenue, Suite 500
Towson, MD 21204
(410) 494-6271

The witness named above is hereby ORDERED to so appear before the Board of Appeals of Baltimore County and to produce the requested documents. The applicant for the subpoena shall certify service of process by first class mail to the attorney for the Appellants.

RECEIVED
JUL 17 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Sunny Cannington
County Board of Appeals for Baltimore County

IN THE MATTER OF: **632 Freeland Road**	*	**BEFORE THE**
	*	**BOARD OF APPEALS**
PETITION FOR SPECIAL EXCEPTION	*	**OF**
7th Election District **3rd Council District**	*	**BALTIMORE COUNTY**
	*	
Legal Owners: Charles and Stephen Atkinson	*	**Case No. 2018-194-X**
Lessee: OneEnergy Development, LLC	*	

* *

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 17th day of June, 2018, a copy of the foregoing Subpoena was emailed and mailed, first class postage pre-paid, to Peter M. Zimmerman, Office of People's Counsel, 105 W. Chesapeake Avenue, Room 204, Towson, MD 21204.

Adam M. Rosenblatt
Venable LLP
210 W. Pennsylvania Avenue
Suite 500
Towson, MD 21204
(410) 494-6271
amrosenblatt@venable.com

RE:	PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

STATE OF MARYLAND, BALTIMORE COUNTY TO WIT:

TO: OneEnergy Development, LLC, via a designated representative
2003 Western Avenue, Suite 225
Seattle, Washington 98121
c/o Adam Rosenblatt, Esquire, attorney

Per Rule 5 of the County Board of Appeals, **YOU ARE HEREBY COMMANDED TO**: ( ) Personally appear; ( ) Produce documents and/or objects only; (**X**) Personally appear and produce documents or objects, with a designated representative; in Hearing Room 2, Second Floor, The Jefferson Building, 105 W. Chesapeake Avenue, Towson, MD 21204 on **July 24, 2018 at 10:00 a.m.**

YOU ARE COMMANDED TO produce the following documents or objects **(for general purpose as stated):**

Relating directly or indirectly to the proposed solar facility project at 632 Freeland Road involving Charles & Stephen Atkinson, LLC, Sassafras Solar, (LLC), BGE, the State of Maryland, and/or any other their agents, employees, or representatives, including but not limited to leases, memoranda, letters, e-mails, and other records; and documents showing licensing, registration, or authorization to do business in Maryland.

SUBPOENA REQUESTED BY:
Peter Max Zimmerman, People's Counsel
Office of People's Counsel for Baltimore County
105 W. Chesapeake Avenue, Room 204
Towson, Maryland 21204
(410) 887-2188

The corporation named above, with a designated representative, is hereby ORDERED to so appear before the County Board of Appeals. The applicant for the subpoena shall certify service of process by first class mail to the attorneys for Petitioner, OneEnergy Development, LLC.

RECEIVED
JUL 16 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Sunny Cannington
County Board of Appeals for Baltimore County

RE:	PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 16th day of July, 2018, a copy of the foregoing Subpoena was mailed and e-mailed to Adam Rosenblatt, Esquire, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorney for Petitioners.

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

RE: PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

STATE OF MARYLAND, BALTIMORE COUNTY TO WIT:

TO: Charles & Stephen Atkinson
632 Freeland Road
Freeland, Maryland 21053
c/o Adam Rosenblatt, Esquire, attorney

Per Rule 5 of the County Board of Appeals, **YOU ARE HEREBY COMMANDED TO**: ( ) Personally appear; ( ) Produce documents and/or objects only; (**X**) Personally appear and produce documents or objects; in Hearing Room 2, Second Floor, The Jefferson Building, 105 W. Chesapeake Avenue, Towson, MD 21204 on **July 24, 2018 at 10:00 a.m.**

YOU ARE COMMANDED TO produce the following documents or objects **(for general purpose as stated):**

Relating directly or indirectly to the proposed solar facility project at 632 Freeland Road involving OneEnergy Development, LLC, Sassafras Solar, BGE, the State of Maryland, and/or any other their agents, employees, or representatives, including but not limited to leases, memoranda, letters, e-mails, and other records.

SUBPOENA REQUESTED BY:
Peter Max Zimmerman, People's Counsel
Office of People's Counsel for Baltimore County
105 W. Chesapeake Avenue, Room 204
Towson, Maryland 21204
(410) 887-2188

The witness named above is hereby ORDERED to so appear before the County Board of Appeals. The applicant for the subpoena shall certify service of process by first class mail to Adam Rosenblatt, Esq. attorney for Petitioners, Charles & Stephen Atkinson.

RECEIVED
JUL 16 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Sunny Cannington
County Board of Appeals for Baltimore County

RE:	PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 16th day of July, 2018, a copy of the foregoing Subpoena was mailed and e-mailed to Adam Rosenblatt, Esquire, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorney for Petitioners.

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

RE: PETITION FOR VARIANCE * BEFORE THE BOARD
632 Freeland Road; NW corner of intersection
of Freeland Road & Oakland Road * OF APPEALS
7th Election & 3rd Councilmanic Districts
Legal Owner(s): Charles & Stephen Atkinson * FOR
Contract Purchaser: OneEnergy Development LLC
Petitioner(s) * BALTIMORE COUNTY

* 2018-194-X

* * * * * * * * * * * * *

STATE OF MARYLAND, BALTIMORE COUNTY TO WIT:

TO: Sassafras Solar (LLC), via a designated representative
632 Freeland Road
Freeland, Maryland 21053
c/o Adam Rosenblatt, Esquire, attorney

Per Rule 5 of the County Board of Appeals, **YOU ARE HEREBY COMMANDED TO**: ( ) Personally appear; ( ) Produce documents and/or objects only; (**X**) Personally appear and produce documents or objects, with a designated representative; in Hearing Room 2, Second Floor, The Jefferson Building, 105 W. Chesapeake Avenue, Towson, MD 21204 on **July 24, 2018 at 10:00 a.m.**

YOU ARE COMMANDED TO produce the following documents or objects **(for general purpose as stated):**

Relating directly or indirectly to the proposed solar facility project at 632 Freeland Road involving Charles & Stephen Atkinson, OneEnergy Development, LLC, BGE, the State of Maryland and/or any their agents, employees, or representatives, including but not limited to leases, memoranda, letters, e-mails, and other records; and Articles of Incorporation, By-Laws, minutes, and records showing business organization and activity.

SUBPOENA REQUESTED BY:
Peter Max Zimmerman, People's Counsel
Office of People's Counsel for Baltimore County
105 W. Chesapeake Avenue, Room 204
Towson, Maryland 21204
(410) 887-2188

The corporation named above is hereby ORDERED, with a designated representative, to appear before the County Board of Appeals. The applicant for the subpoena shall certify service of process by first class mail to the attorney for Petitioners, Sassafras Solar.

RECEIVED
JUL 16 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Sunny Cannington
County Board of Appeals for Baltimore County

RE:	PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE BOARD OF APPEALS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 16th day of July, 2018, a copy of the foregoing Subpoena was mailed and e-mailed to Adam Rosenblatt, Esquire, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorney for Petitioners.

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

Board of Appeals of Baltimore County

JEFFERSON BUILDING
SECOND FLOOR, SUITE 203
105 WEST CHESAPEAKE AVENUE
TOWSON, MARYLAND, 21204
410-887-3180
FAX: 410-887-3182

July 10, 2018

H. Barnes Mowell, Esquire
16925 York Road
Monkton, Maryland 21111

Re: In the matter of: David Mathews – Legal Owner
Bluefin Origination 2, LLC – Lessee
Case No: 17-108-X

In the matter of: Charles Atkinson and Stephen Atkinson – Legal Owners
OneEnergy Development, LLC – Lessee
Case No: 18-194-X

In the matter of Jerry Phillips – Legal Owner
Forefront Power, LLC – Lessee
Case No: 18-072-X

Dear Mr. Mowell:

We are in receipt of your request for postponement of the above referenced cases and responses thereto. I have reviewed your request with our Chairman.

Please be advised that your request for postponement is being denied in all of the above referenced cases. All hearings will proceed as scheduled.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Sunny Cannington

Krysundra Cannington

cc: Adam Rosenblatt, Esquire
Christopher Mudd, Esquire
Lawrence Schmidt, Esquire
Patricia Malone, Esquire
People's Counsel for Baltimore County

VENABLE® LLP

210 W. PENNSYLVANIA AVENUE SUITE 500 TOWSON, MD 21204
T 410.494.6200 F 410.821.0147 www.Venable.com

Patricia A. Malone
Counsel
t 410.494.6206
f 410.821.0147
pamalone@venable.com

HAND-DELIVERED

RECEIVED
JUL 9 2018
BALTIMORE COUNTY
BOARD OF APPEALS

July 9, 2018

Krysundra L. Cannington, Administrator
Board of Appeals of Baltimore County
The Jefferson Building, Suite 203
105 West Chesapeake Avenue
Towson, Maryland 21204

Re: Case No. 18-194-X – 632 Freeland Road
7th Election District, 3rd Councilmanic District

Dear Ms. Cannington:

I am writing to respond to Mr. Mowell's letter submitted today, wherein, on behalf of Appellants, he requests that the Board of Appeals postpone two pending cases being handled by our office. I appreciate that Appellants were upfront in their reason for requesting the postponement. However, for the reasons stated below, I am asking the Board to deny the requested postponement.

This is not a situation where cases are being rushed to hearing to beat a looming threat. Last year, the Baltimore County Council passed legislation regulating solar facilities. *See* Bill No. 37-17, codified as Article 4F of the Baltimore County Zoning Regulations. Each of the cases referenced by Apellants was filed more than a year ago, and, with the passage of Bill No. 37-17, Appellees have proceeded forward in good faith reliance on that law.

As the basis for their postponement request, Appellants use the excuse that the Planning Board is expected to make recommendations on solar facilities later this summer. Even if the Planning Board recommends a moratorium, only the Council has the ability to change the law, which currently permits these facilities.

There is nothing pending before the Council that would impact these cases. Regardless, Appellants are requesting that the Board of Appeals put a hold on these cases to give them time to try to pursue a moratorium. Such action by the Board of Appeals would be unprecedented and inappropriate. Appellees should be allowed to continue their efforts unless and until the Council takes action.

For these reasons, Appellees request that the Board deny the requested postponement and allow the cases to proceed as scheduled.

Very truly yours,

Patricia A. Malone

cc: Lawrence E. Schmidt, Esq.

H. BARNES MOWELL, P.A.
Attorney At Law
16925 York Road
Monkton, Maryland 21111
Phone: 410-329-6488 Fax: 410-357-4663
barneymowell@hotmail.com
July 9, 2018

RECEIVED
JUL 09 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Board of Appeals of Baltimore County
105 W. Chesapeake Avenue
Suite 203
Towson, Maryland 21204

VIA HAND-DELIVERY

Re: In the Matter of: David William Matthews - Legal Owner
Bluefin Origination 2 LLC - Lessee
20450 Middletown Road
6th Election District, 3rd Councilmanic District
Case No: 17-108-X
Hearing Date: July 12, 2018 at 10 a.m.

In the Matter of: Charles Gary Atkinson & Stephen Gordon Atkinson - Legal Owners
OneEnergy Development, LLC - Lessee
632 Freeland Road
7th Election District; 3rd Councilmanic District
Case No: 18-194-X
Hearing Dates: July 24, 2018 and July 25, 2018 at 10 a.m.

In the Matter of: Jerry Phillips - Legal Owner
Forefront Power, LLC- Lessee
19735 Graystone Road
7th Election District, 3rd Councilmanic District
Case No: 18-072-X
Hearing Date: July 31, 2018 at 10 a.m.

Ladies and Gentlemen:

I represent the Protestants in the three captioned cases, all of which are scheduled for hearings in July. I am requesting that all three cases be postponed, for the following reasons.

All three cases concern a request to construct a solar facility on farmland in northern Baltimore County. The legislation allowing such facilities, County Council Bill No. 37-17, took effect on July 17, 2017. Section Two of that Bill required the Baltimore County Planning Board, with participation from other entities, to "study and evaluate the impact of Solar Facilities in Baltimore County and the effect of Article 4E of these Regulations, and by July 1, 2018 submit recommendations to the County Council and the County Executive regarding potential changes to current law." (See attached Exhibit 1).

The Planning Board has missed the July 1st deadline. It held a public meeting on June 7th for the purpose of "Evaluation of the Impacts of Solar Facilities in Baltimore County." (See minutes of meeting attached hereto as Exhibit 2). After summarizing a discussion among the Board members, and noting input from 26 registered speakers, the minutes from the June 7th meeting conclude by saying that "Chairman Phillips stated that the Board members will take all comments into consideration as the vote is tentatively scheduled for June 21, 2018."

The Agenda for the June 21st Board meeting is attached hereto as Exhibit 3, and in fact lists the Solar Facilities Bill as an Item for Discussion and Vote. No minutes of that meeting have been posted at the Planning Board website, but our understanding is that the vote was put off until the next meeting, scheduled for July 5th. As shown on the attached notice from the website, attached as Exhibit 4, the July 5th Planning Board meeting was just cancelled. The next scheduled meeting shown on the Planning Board website is July 19th.

My clients believe that there will be changes made to the Solar Facilities law, and perhaps a moratorium, when the Planning Board finally makes its recommendations. That belief is supported by the Recommendations included in a Staff Report of the Department of Planning's Review of Article 4F of Baltimore County Zoning Regulations Regarding Solar Facilities, which is dated May 17, 2018. The Report concludes with six Staff Recommendations. Recommendation #4 is to "Investigate whether some additional conditions are warranted to reduce the impact on farms." (See attached Exhibit 5.)

The Board of Appeals has four full hearing days scheduled in July for the three captioned cases. My clients believe that the law to be applied by the Board in making its decisions is about to change. The recommendations for such changes were expected on July 5th. They have now been delayed until July 19th, at the earliest. The resources of the parties, and the Board, will be best spent by having these hearings held after the Planning Board's recommendations have been made. For the foregoing reasons, the Protestants in the three captioned cases respectfully request that the hearing dates in each case be postponed until such recommendations have been made.

Very truly yours,

H. Barnes Mowell

Certificate of Service

I HEREBY CERTIFY that a copy of this Request was e-mailed and mailed by first class mail this 9th day of July 2018 to Patricia A. Malone and Christopher D. Mudd, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Lawrence E. Schmidt, Esquire, 600 Washington Avenue, Suite 200, Towson, Maryland 21204 and to Peter Max Zimmerman, Esquire, 105 W. Chesapeake Avenue, Room 204, Towson, Maryland 21204.

H. Barnes Mowell

PETITIONER AND LANDOWNER AGREE TO ALLOW ENTRY TO REMOVE AN
NDONED FACILITY.

THE CODE OFFICIAL MAY ISSUE A CITATION TO THE OWNER OR OPERATOR
REMOVAL OF A SOLAR FACILITY IF:

1. THE CODE OFFICIAL DETERMINES THAT THE SOLAR FACILTY HAS NOT
N IN ACTUAL AND CONTINUOUS USE FOR 12 CONSECUTIVE MONTHS;

2. THE OWNER OR OPERATOR FAILED TO CORRECT AN UNSAFE OR
ARDOUS CONDITION OR FAILED TO MAINTAIN THE SOLAR FACILITY UNDER
TION 4E-106 WITHIN THE TIME PRESCRIBED IN A CORRECTION NOTICE
JED BY THE CODE OFFICIAL; OR

3. THE OWNER OR OPERATOR HAS FAILED TO REMOVE THE SOLAR
ILITY IN ACCORDANCE WITH PARAGRAPH C.

2.1. Conditions Determining Granting of Special Exception.

re any special exception may be granted, it must appear that the use for which the special
ption is requested will not:

Be detrimental to the environment and natural resources of the site and vicinity including
ats, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5, or R.C.7 Zone,
D FOR CONSIDERATION OF A SOLAR FACILITY USE UNDER ARTICLE 4E, THE
CLUSION OF THE R.C.3, R.C.6, AND R.C.8 ZONE.

SECTION 2. AND BE IT FURTHER ENACTED, that the Planning Board shall, in
sultation with the Departments of Planning and Environmental Protection and Sustainability,

and with participation of the Baltimore County Commission on Environmental Quality, representatives of the Solar Industry, the Sierra Club's Greater Baltimore Group, and the Valleys Planning Council, study and evaluate the impact of Solar Facilities in Baltimore County and the effect of Article 4E of these Regulations, and by July 1, 2018 submit recommendations to the County Council and the County Executive regarding potential changes to current law.

SECTION 3. AND BE IT FURTHER ENACTED, that this Act, having been passed by the affirmative vote of five members of the County Council, shall take effect on July 17, 2017 and shall apply retroactively to any zoning petition filed after October 18, 2016.

Exhibit 1

Mr. Jakubiak opined that a mobile home park is a defined term in the zoning regulations which is considered a commercial use. This is not allowed in the BR except by special exception so this is not a residential use. Chairman Phillips asked if people live there. Mr. Jakubiak confirmed that people live there but there is a commercial element in the front for a R.V. center.

Other Business

3. Recent County Council Legislation of Interest to the Board

Mr. DelMonico provided a brief report on the recently passed County Council legislation which are listed below.

d) Bill 28-18 Medical Cannabis Dispensaries – Location

e) Bill 29-18 Zoning Regulations – Commercial Recreational Facilities

f) Bill 30-18 Zoning Regulations – Uses in Certain B.L. Zones

Adjournment of the Board Meeting

Chairman Phillips called for a motion to adjourn the Board meeting. Ms. Hafford made the motion and Mr. Warren seconded the motion, which passed unanimously at 5:20 p.m. Absent for the vote was Ms. Berzins, Ms. Lipkowitz, and Mr. Perlow.

Public Hearing**
by the
Baltimore County Planning Board

Call to Order, Introduction of Board Members, and Remarks on Procedure by Chairman

Items for Public Hearing

1. Bill 37-17: Solar Facilities – Evaluation of the Impacts of Solar Facilities in Baltimore County

Chairman Phillips called the Public Hearing to order at 5:38 pm and welcomed Wally Lippincott to present before the Board. Mr. Lippincott provided an overview of the Department of Planning's report on Bill 37-17 as well as the process for how the report was produced. Mr. Lippincott showcased a number of solar facility projects which have already come in for review by the County and explained the process which they have gone through. Mr. Lippincott stated that the Department's recommendations as defined within the report.

Ms. Hafford asked if there were hearings in all of the Councilmatic districts. Mr. Lippincott stated that there were two meetings to solicit stakeholder input but not in every district.

Mr. McGinnis asked if the report states the number of farmers who provided input. Mr. Lippincott stated that there was one farmer that is not full time. Chairman Phillips asked if any others attended the meetings. Mr. Lippincott confirmed that no other farmers attended.

Mr. Schlossberg asked if acreage was ever discussed in the meetings. Mr. Lippincott shared that the areas for special exception are 15 acres or less which is what is needed to produce 2 megawatts.

Mr. McGinnis asked if the committee discussed the difference between prime and productive soils such as class 1, 2, 3 soils (more productive) vs. 4, 5, and 6 (less productive). Mr. Lippincott stated that this was not discussed at the meetings.

Mr. Schweitzer asked about the legislation's ability to account for potential technological improvements which may increase the output of the solar panels. Mr. Lippincott stated that there is a limitation on the capacity of the lines but the technology is blossoming which will require vigilance. Mr. Schweitzer asked if there is an understanding on how runoff of water would impact the ground underneath the panels. Mr. Lippincott stated that there has to be a plan submitted to the Department of Environmental Protection and Sustainability (EPS) for them to consider storm water management.

Ms. Wolfson asked why the committee which met on this legislation so exclusive. Mr. Lippincott stated that Bill 37-17 called for who shall participate and the meetings were open for others to attend. Ms. Van Arsdale stated that if more agricultural professionals wanted to come than they were welcome to come. Mr. Lippincott stated that the Department had expanded upon the group listed in Bill 37-17 to include representatives from the Rural Land Trust and the Agricultural Land Preservation Advisory Board to provide input on the agricultural issues.

Mr. McGinnis asked if the R.C. 2 regulations were ever amended to allow commercial non-agricultural uses. Mr. Lippincott stated that back in the early 1990's new rules were issued to balance between rural communities with agriculture. The State recently changed the uses permitted on agricultural easements to take into consideration additional agricultural commercial activities which take place on farms.

Chairman Phillips allowed for testimony from the public on this topic. There were a total of 26 registered speakers, the list of speakers and submitted comments are located in the Planning Board's file. The speakers were largely in opposition to allowing solar facilities be integrated into the rural landscape. Some speakers recognized the benefits of renewable energy but also stressed the importance of protecting the agricultural capacity of Baltimore County. Speakers also expressed concerns on the potential impacts that a solar facility would have on home values if located in view of a residence. Suggestions comprised of locating solar facilities in more visually isolated areas, in urban settings, and in "brown fields". One speaker asked the Board to provide him flexibility with his land as he investigates building a solar facility on a portion of his land or sub-dividing it to generate earnings.

Chairman Phillips stated that the Board members will take all comments into consideration as the vote is tentatively scheduled for June 21, 2018.

Adjournment of Public Hearing

DONALD I. MOHLER III
County Executive

ANDREA VAN ARSDALE, *Director*
Department of Planning

PLANNING BOARD

Tentative Agenda*
Thursday, June 21, 2018

PUBLIC MEETING
Beginning at 4:00 p.m.

Hearing Room 104, Jefferson Building
105 W. Chesapeake Avenue
Towson, Maryland

Meeting
of the
Baltimore County Planning Board
N. Scott Phillips, Chairman

Call to Order, Introduction of Board Members, Pledge of Allegiance, and Announcements

Review of Today's Agenda

Minutes of the June 7, 2018 Meeting

Item for Introduction

1. Cycle 36 Water Supply and Sewerage Master Plan Amendments

Items for Discussion and Vote

2. Bill 37-17: Solar Facilities – Evaluation of the Impacts of Solar Facilities in Baltimore County
3. Pulaski Crossing, PAI #: XI-1041, Master Plan Conflict

Other Business

4. Report from the June 14th, 2018 meeting of the Landmarks Preservation Commission
5. Recent County Council Legislation of Interest to the Board
   a. Bill 47-18 – Zoning Regulations – Manufacturing, Light (M.L.) Zone
   b. Bill 51-18 – Development – Vesting
   c. Res. 46-18 – Amending the Baltimore National Pike Commercial Revitalization District

105 West Chesapeake Avenue, Suite 101 | Towson, Maryland 21204 | Phone: 410-887-3211 | Fax: 410-887-5862
planning@baltimorecountymd.gov | www.baltimorecountymd.gov/planning

DONALD I. MOHLER III
County Executive

ANDREA VAN ARSDALE, *Director*
Department of Planning

PLANNING BOARD

July 5, 2018

The meeting of the Baltimore County Planning Board tentatively scheduled for July 5, 2018 has been **canceled**.

Andrea J. Van Arsdale

Andrea Van Arsdale
Secretary to the Board

AVA:jdd

105 West Chesapeake Avenue | Towson, Maryland 21204 | Phone: 410-887-3211 | Fax: 410-887-5862
planning@baltimorecountymd.gov | www.baltimorecountymd.gov/planning

Exhibit 4

Review of Article 4F* of Baltimore County Zoning Regulations Regarding Solar Facilities

A Staff Report of the Baltimore County Department of Planning
May 17, 2018

PROJECT DESCRIPTION

This report responds to County Council Bill 37-17 Section 2 directing the Baltimore County Planning Board in consultation and participation with others to study and evaluate the impact of solar facilities in Baltimore County and the effect of the Regulations adopted in Article 4F and to submit the recommendations to the County Council and the County Executive regarding potential changes to the current law. In 2017, the Baltimore County Council approved Bill 37-17, which permits a Solar Facility to be located in certain zones of the County by special exception; provides for certain requirements; provides for security; provides for maintenance, abandonment and removal of a facility; authorizes enforcement; and generally relating to Solar Facilities.

BACKGROUND

The County recognizes solar energy for many positive attributes and seeks to balance the benefits with the potential impact upon the County's land use policies (BCZR 4E101.1). The Maryland Renewable Energy Portfolio Standard set a goal of 2.5% of in-State power to be generated by solar power by 2020 (MD Office of Attorney General). There is a spectrum of solar facilities ranging from residential roof top to community solar to very large utility systems. Bill 37-17 permits limited accessory and commercial systems of a maximum of 2 megawatt (MW)** in size. The Baltimore County Master Plan 2020 recognizes the potential impact of new development on the character of the "countryside" and provides policies to protect those resources while permitting limited development (Baltimore County 2020 Master Plan, Adopted by Baltimore County Council November 15, 2010, Page 91).

STUDY METHODOLOGY

The Department of Planning with concurrence of the Department of Environmental Protection and Sustainability convened two stakeholder meetings to solicit input on the impact of the existing proposed projects and to receive recommendations for any changes that should be made to the regulations.

*The Solar Facilities Article was enacted as Article 4E, however, it was retitled as Article 4F. in the Baltimore County Zoning Regulations.

** Solar power production varies depending on many factors including sunshine, temperature and wind. 1 MW of Solar can power from 164 to 1000 homes depending on those conditions. According to the CEQ report (2016) 2 MW will produce enough energy to provide power to 150 to 200 "typical" homes in Maryland.

ist for additional wildlife/pollinator on the property that could also have a positive impact on the visual appearance of the facilities.

- **Dependency on BGE Community Solar Pilot Program**- Most of the proposed solar projects in the county are also applicants to the state's Community Solar Pilot program. Approval into the Community Solar program may be a significant or dependent factor in such projects becoming a reality, in addition to seeking county approval. Additionally, it was revealed that projects to be considered for years 2 & 3 of the Community Solar program must be submitted this year (June 2018), which could have implications on the timing and how many projects are proposed in the county in the coming years.

- **Unknown Transmission Capacity**- Available capacity in local transmission lines was noted to be a key factor in the viability of solar projects. There is limited information available to determine what areas have available capacities for solar projects, and capacity availability is usually unknown until an energy project applies for approval with BGE. Solar companies may apply for the maximum permitted megawatt output, but actual approval may grant less megawatt output than permitted based on system capacity.

- **Regional Allocation of Solar Facilities** - Carroll and Harford counties currently don't allow commercial solar facilities on their agricultural and rural zoned land, and Anne Arundel county currently has a moratorium on commercial solar projects, appearing that Baltimore County is receiving a disproportionate number of projects within the region.

- **Master Plan Guidance/Potential Conflicts**- *Master Plan 2020* does not give direction on a comprehensive strategy for renewable energy or its siting. While the Master Plan does speak about sustainable housing and efforts to make housing more energy efficient, there is no mention of a renewable energy policy in regards to solar energy. Meanwhile, agricultural land preservation is a dominant theme which is discussed throughout the master plan.

STAFF RECOMMENDATIONS

1. **Seek stakeholder input into developing goals for solar facilities in the County to be included in the 2030 Master Plan.** The goals should include use and development of solar facilities on new development and on existing commercial and industrial projects as well as the rural areas. The goal should take into consideration State and Federal goals.

2. **Maintain the limit of 10 projects per councilmanic district.** The number of projects in the 3rd is approaching the limit, however, the limitations may encourage development of solar facilities for commercial and industrial lands.
3. **Encourage the State to incentivize the development of solar on greyfields and brownfields.** Much like the State has incentivized the development of community solar projects which utilize greenfields, the State should incentivize the development of projects on greyfields and brownfields.
4. **Investigate whether some additional conditions are warranted to reduce the impact on farms.** There is the potential for the loss of a considerable amount of farms which previously had been protected from loss to other uses such as golf courses and development.
5. **Investigate if changes to the approval process could reduce the number of appeals.** The majority of projects that have received Special Exception approval have been appealed. Look at models such as the Tower Review Committee procedure or other processes that might result in more input and fewer appeals.
6. **Plan to review the law five years from date of its passage so as to review built projects, assess impacts, and make changes as warranted.**

Krysundra Cannington

From: barney Mowell <barneymowell@hotmail.com>
Sent: Friday, July 06, 2018 4:57 PM
To: Krysundra Cannington
Cc: Lawrence Schmidt; amrosenblatt@Venable.com; pamalone@venable.c; cdmudd@Venable.com; peter max zim; Kathleen Pieper; dryad101@hotmail.com
Subject: solar panel hearings

Ms. Cannington: I represent the Protestants in three solar hearings that are scheduled in July: 20450 Middletown Road on July 12th (case 17-108-X), 632 Freeland Road on July 24th (case 18-194-X) , and 19735 Graystone Road on July 31st (case 18-072-X). I am writing to advise that I will be filing a request to postpone these hearings, on Monday. The solar facilities legislation required the Planning Board to submit recommendations to the County Council regarding potential changes to the law by July 1st. The Planning Board has missed the July 1st deadline. The Board agreed to continue their discussion regarding changes to the law at a July 5th meeting, but that meeting was just canceled. The next meeting is scheduled for July 19th. My clients believe that there will be changes made to the law, and perhaps a moratorium, when the Planning Board makes its recommendations. The resources of the parties, and the Board, will be best spent by having these hearings held after those recommendations have been made, and that will be the basis for the postponement request. Barney Mowell

VENABLE® LLP

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T 410.494.6271
F 410.821.0147
amrosenblatt@venable.com

May 18, 2018

RECEIVED
MAY 18 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Via Hand Delivery
Krysundra "Sunny" Cannington
Board of Appeals of Baltimore County
Jefferson Building, Suite 203
105 W. Chesapeake Avenue
Towson, MD 21204

Re: Scheduling for Petition for Special Exception
632 Freeland Road
Case No. 2018-0194-X

Dear Ms. Cannington:

I am in receipt of a notice of appeal in the above-referenced matter and am writing to request that this matter be set before the Board as quickly as possible. As you might be aware, community solar projects are on a tight, state-mandated timeline and must obtain their necessary permits and approvals and begin operating within 12 months of the date that they are accepted into the program. This project was accepted into the community solar program on September 5, 2017 and the date to begin operating is therefore September 5, 2018. If the September deadline is not met, the operator will face a substantial fee and will risk losing the ability to participate in the community solar project all together.

We would greatly appreciate the Board providing a few dates and times for this hearing, which took approximately 3 hours before the Office of Administrative Hearings and should be scheduled for 2 hearing days before the Board. As our witnesses will be traveling across the country for the hearings, we would request that the two hearings be scheduled on consecutive days.

Thank you for your time and attention to this matter.

Very truly yours,

Adam M. Rosenblatt

cc: H. Barnes Mowell, Esq.

KEVIN KAMENETZ
County Executive

LAWRENCE M. STAHL
Managing Administrative Law Judge
JOHN E. BEVERUNGEN
Administrative Law Judge

May 1, 2018

RECEIVED
MAY 01 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Adam Rosenblatt, Esq.
Venable, LLP
210 W. Pennsylvania Avenue, Suite 500
Towson, Maryland 21204

RE: **APPEAL TO BOARD OF APPEALS** – Petition for Special Exception
Case No. 2018-0194-X
Property: 632 Freeland Road

Dear Mr. Rosenblatt:

Please be advised that an appeal of the above-referenced case was filed in this Office on April 30, 2018. All materials relative to the case have been forwarded to the Baltimore County Board of Appeals ("Board").

If you are the person or party taking the appeal, you should notify other similarly interested parties or persons known to you of the appeal. If you are an attorney of record, it is your responsibility to notify your client.

If you have any questions concerning this matter, please do not hesitate to contact the Board at 410-887-3180.

Sincerely,

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/dlw

c: Baltimore County Board of Appeals
Peter Max Zimmerman, People's Counsel for Baltimore County
H. Barnes Mowell, Esq., H. Barnes Mowell, P.A., 16925 York Road, Monkton, MD 21111
Lynne Jones, 815 Stablers Church Rd., Baltimore, MD 21120
Kathleen Pieper, 4310 Beckleysville Road, Baltimore, MD 21074
Salvatore & Beverly Scavone, 20220 Middletown Road, Baltimore, MD 21053
George Harman, 5429 Weywood Dr., Reisterstown, MD 21136
Mike Pierce, 7448 Bradshaw Road, Kingsville, MD 21087

BALTIMORE COUNTY, MARYLAND
OFFICE OF BUDGET AND FINANCE
MISCELLANEOUS CASH RECEIPT

Nº 143382

Date: 4-30-18

Fund	Dept	Unit	Sub Unit	Rev Source/ Obj	Sub Rev/ Sub Obj	Dept Obj	BS Acct	Amount
001	806	0000		6150				385.00

Total: 385.00

Rec From: H. Barnes Mowell, Esq.

For: OAH Appeal – Hearings – 3-30-18

Case No. 2018-0194-X

632 Fredand Rd.

DISTRIBUTION
WHITE - CASHIER PINK - AGENCY YELLOW - CUSTOMER GOLD - ACCOUNTING
PLEASE PRESS HARD!!!!

PAID RECEIPT

BUSINESS	ACTUAL	TIME	DRW
5/01/2018	4/30/2018	14:40:33	1

REG WS01 WALKIN LJR
>>RECEIPT # 784424 4/30/2018 OFLN
Dept 5 528 ZONING VERIFICATION
CR NO. 143382
Recpt Tot $385.00
$385.00 CK $.00 CA
Baltimore County, Maryland

CASHIER'S VALIDATION

H. BARNES MOWELL, P.A.
Attorney At Law
16925 York Road
Monkton, Maryland 21111
Phone: 410-329-6488 Fax: 410-357-4663
barneymowell@hotmail.com

April 30, 2018

RECEIVED
APR 30 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

Arnold Jablon, Director
Department of Permits, Approvals & Inspections
111 W. Chesapeake Avenue
Suite 205
Towson, Maryland 21204

via Hand-Delivery

Re: Notice of Appeal of OAH Decision
Case No: 2018-0194-X

Dear Mr. Jablon:

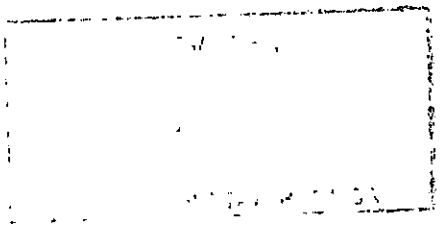
I have enclosed a Notice of Appeal of the Opinion and Order of the Office of Administrative Hearings in the captioned case, as well as a check for the $385 filing fee.

Should you have any questions, please contact me.

Very truly yours,

H. Barnes Mowell

cc: Baltimore County Board of Appeals
Office of Administrative Hearings



RECEIVED
APR 30 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

IN RE: PETITION FOR SPECIAL EXCEPTION (632 Freeland Road) 7th Election District 3rd Council District Charles Gary Atkinson & Stephen Gordon Atkinson *Legal Owners* OneEnergy Development, 2 LLC *Lessee*	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY
Petitioners	*	CASE NO: 2018-0194-X

* * * * * * *

NOTICE OF APPEAL

Please enter my appearance as counsel on behalf of the Freeland Legacy Alliance, Inc. 20216 Middletown Rd., Freeland, MD 21053, Bobby Rohe, 21712 Orwig Rd., Freeland, MD 21053, Don and Nadine Lentz, 21718 Orwig Rd., Freeland, MD 21053, John M. Altmeyer, 21722 Orwig Rd., Freeland, MD 21053, Ronald Danielson, 21600 Orwig Rd., Freeland, MD 21053, Matt Hubbard, 21421 Heathecote Rd., Freeland, MD 21053, Connie Wood, 705 Freeland Rd., Freeland, MD 21053, Bob Clark, 1507 Freeland Rd., Freeland, MD 21053, Laverne Poe, 1043 Freeland Rd., Freeland, MD 21053 Diana Householder, 1511 Freeland Rd., Freeland, MD 21053, Kathleen and Christopher Marciniak, 21321 Ridge Rd., Freeland, MD 21053, Lois Jean Bowman, 2709 Flintstone Rd., Freeland, MD 21053, Scott Dykes, 2602 Flintstone Rd., Freeland, MD 21053, Salvatore and Beverly Scavone 20220 Middletown Rd., Freeland, MD 21053, Richard Ryan, 2602 Flintstone Rd., Freeland, MD 21053, Slave Schener, 3012 Rockdale Rd., Freeland, MD 21053, Theresa and Christopher Norton, 20222 Middletown Rd., Freeland, MD 21053, Christine Pignataro, 20910 Middletown Rd., Freeland, MD 21053, Rhonda and William Rollins, 16724 Miller La., Parkton, MD 21120, Debbie Frank,

16724 Miller Lane, Parkton, MD 21120, Ed and Debra Myslinski, 6 Hedricks Ct., Parkton, MD 21120, Paul and Linda Hoeckel, 3521 Baker Schoolhouse Rd., Freeland, MD 21053, Kathleen Pieper, 4310 Beckleysville Rd., Hampstead, MD 21074, Theresa Sassler, 10 Twin Oaks Ct., Freeland, MD 21053, Patricia Trump, 18631 York Rd., Parkton, MD 21053, Robin Arrington, 21705 Gunpowder Rd., Manchester, MD 21102, Beverly Kram, 3315 Baker Schoolhouse Rd., Freeland, MD 21053, Teresa Moore, P.O. Box 5402, Towson, MD 21285, and Lynne Jones, 815 Stablers Church Rd., Parkton, MD 21120.

Please note the appeal by the above-named entity and individuals to the Baltimore County Board of Appeals of the Opinion and Order entered in the captioned case by the Office of Administrative Hearings on April 3, 2018.

H. Barnes Mowell, P.A.
16925 York Road
Monkton, Maryland 21111
410-329-6488
barneymowell@hotmail.com

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing was mailed this 30th day of April 2018 to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204.

H. Barnes Mowell

H. BARNES MOWELL, P.A.
Attorney At Law
16925 York Road
Monkton, Maryland 21111
Phone: 410-329-6488 Fax: 410-357-4663
barneymowell@hotmail.com

April 30, 2018

RECEIVED
APR 30 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

Arnold Jablon, Director
Department of Permits, Approvals & Inspections
111 W. Chesapeake Avenue
Suite 205
Towson, Maryland 21204

via Hand-Delivery

Re: Notice of Appeal of OAH Decision
Case No: 2018-0194-X

Dear Mr. Jablon:

I have enclosed a Notice of Appeal of the Opinion and Order of the Office of Administrative Hearings in the captioned case, as well as a check for the $385 filing fee.

Should you have any questions, please contact me.

Very truly yours,

H. Barnes Mowell

RECEIVED
APR 30 2018
BALTIMORE COUNTY
BOARD OF APPEALS

cc: Baltimore County Board of Appeals
Office of Administrative Hearings

IN RE: PETITION FOR SPECIAL EXCEPTION (632 Freeland Road) 7th Election District 3rd Council District Charles Gary Atkinson & Stephen Gordon Atkinson *Legal Owners* OneEnergy Development, 2 LLC *Lessee*	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY
Petitioners	*	CASE NO: 2018-0194-X

RECEIVED
APR 30 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

RECEIVED
APR 30 2018
BALTIMORE COUNTY
BOARD OF APPEALS

NOTICE OF APPEAL

Please enter my appearance as counsel on behalf of the Freeland Legacy Alliance, Inc. 20216 Middletown Rd., Freeland, MD 21053, Bobby Rohe, 21712 Orwig Rd., Freeland, MD 21053, Don and Nadine Lentz, 21718 Orwig Rd., Freeland, MD 21053, John M. Altmeyer, 21722 Orwig Rd., Freeland, MD 21053, Ronald Danielson, 21600 Orwig Rd., Freeland, MD 21053, Matt Hubbard, 21421 Heathecote Rd., Freeland, MD 21053, Connie Wood, 705 Freeland Rd., Freeland, MD 21053, Bob Clark, 1507 Freeland Rd., Freeland, MD 21053, Laverne Poe, 1043 Freeland Rd., Freeland, MD 21053 Diana Householder, 1511 Freeland Rd., Freeland, MD 21053, Kathleen and Christopher Marciniak, 21321 Ridge Rd., Freeland, MD 21053, Lois Jean Bowman, 2709 Flintstone Rd., Freeland, MD 21053, Scott Dykes, 2602 Flintstone Rd., Freeland, MD 21053, Salvatore and Beverly Scavone 20220 Middletown Rd., Freeland, MD 21053, Richard Ryan, 2602 Flintstone Rd., Freeland, MD 21053, Slave Schener, 3012 Rockdale Rd., Freeland, MD 21053, Theresa and Christopher Norton, 20222 Middletown Rd., Freeland, MD 21053, Christine Pignataro, 20910 Middletown Rd., Freeland, MD 21053, Rhonda and William Rollins, 16724 Miller La., Parkton, MD 21120, Debbie Frank,

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Please note the appeal by the above-named entity and individuals to the Baltimore County Board of Appeals of the Opinion and Order entered in the captioned case by the Office of Administrative Hearings on April 3, 2018.

H. Barnes Mowell, P.A.
16925 York Road
Monkton, Maryland 21111
410-329-6488
barneymowell@hotmail.com

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing was mailed this 30th day of April 2018 to Adam Rosenblatt, Esquire, Venable, LLP, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204.

H. Barnes Mowell

KEVIN KAMENETZ
County Executive

LAWRENCE M. STAHL
Managing Administrative Law Judge
JOHN E. BEVERUNGEN
Administrative Law Judge

April 3, 2018

Adam Rosenblatt, Esq.
Venable, LLP
210 W. Pennsylvania Avenue, Suite 500
Towson, Maryland 21204

RE: Petitions for Special Exception
Case No. 2018-0194-X
Property: 632 Freeland Road

Dear Mr. Rosenblatt:

Enclosed please find a copy of the decision rendered in the above-captioned matter.

In the event any party finds the decision rendered is unfavorable, any party may file an appeal to the County Board of Appeals within thirty (30) days of the date of this Order. For further information on filing an appeal, please contact the Office of Administrative Hearings at 410-887-3868.

Sincerely,

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB:sln
Enclosure

c: Lynne Jones, 815 Stablers Church Rd., Baltimore, MD 21120
Kathleen Pieper, 4310 Beckleysville Road, Baltimore, MD 21074
Salvatore & Beverly Scavone, 20220 Middletown Road, Baltimore, MD 21053
George Harman, 5429 Weywood Dr., Reisterstown, MD 21136
Mike Pierce, 7448 Bradshaw Road, Kingsville, MD 21087

IN RE: PETITION FOR SPECIAL EXCEPTION (632 Freeland Road) 7th Election District 3rd Council District Charles Gary Atkinson & Stephen Gordon Atkinson *Legal Owners* OneEnergy Development, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0194-X

* * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Charles Gary Atkinson and Stephen Gordon Atkinson, legal owners and OneEnergy Development, LLC, lessee ("Petitioners"). The petition was filed pursuant to the Baltimore County Zoning Regulations ("BCZR") to approve a Solar Facility on a property zoned RC-2.

Eric Anderson, Steve Pieper, David Wagner, John Douglas, Marni Carroll, Kate Larkin, Matthew Durette, Henry Fawell and Mitch Kellman appeared in support of the petition. Adam M. Rosenblatt, Esq. and Patsy Malone, Esq. represented the Petitioners. Several citizens attended the hearing and opposed the request. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Environmental Protection and Sustainability (DEPS), the Bureau of Development Plans Review (DPR) and the Department of Planning (DOP).

The subject property is approximately 99.46 acres in size and is zoned RC-2. The rural property is located in the Freeland area and adjoins Oakland and Freeland Roads, both of which are Baltimore County scenic routes. The property is presently farmed, and Charles Atkinson indicated in correspondence (Pet. Exhibit 3) his family has owned the farm since 1810. The owners have leased a portion of the property for a period of 35 years (which includes an initial 25 year

ORDER RECEIVED FOR FILING
Date 4/3/18
By DLN

term and a 10-year renewal option) to OneEnergy which proposes to use approximately 19 acres of the site for a solar facility. The balance of the property would continue to be farmed.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mitch Kellman, a zoning and land use planner accepted as an expert, opined the proposal was in compliance with B.C.Z.R. §502.1 and the case law interpreting that provision. While the Protestants object to using prime agricultural land in rural areas for solar facilities, the law specifically permits the use in these areas. As such, I do not believe the evidence and testimony presented by Protestants can overcome the presumption in favor of the special exception use.

One or more of the Protestants expressed concern with streams on the property, along with the potential that some of the tributaries could be classified as sensitive due to trout populations. No evidence was presented as to whether or not there are Class III or otherwise sensitive streams on the subject property. The DEPS has noted in its ZAC comment, a copy of which is attached hereto, that Petitioners will be required to comply with State-mandated stormwater management requirements specific to solar facilities. As such, I am confident that agency will impose whatever conditions may be necessary to protect nearby water resources.

ORDER RECEIVED FOR FILING
Date 4/3/18
By ASL

THEREFORE, IT IS ORDERED this 3rd day of **April, 2018,** by this Administrative Law Judge, that the Petition for Special Exception to use the property for a Solar Facility be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comments submitted by the DOP, DEPS and DPR, copies of which are attached hereto and incorporated herein.

3. All solar panels installed on the subject property must be confined to an area no larger than 10 acres situated within the overall 18.929 Ac. special exception area shown on the site plan.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

ORDER RECEIVED FOR FILING
Date 4/3/18
By sln

BALTIMORE COUNTY, MARYLAND

INTEROFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Department of Permits, Approvals
And Inspections

DATE: March 1, 2018

FROM: Vishnu Desai, Supervisor
Bureau of Development Plans Review

SUBJECT: Zoning Advisory Committee Meeting
For February 12, 2018
Item No. 2018-0194-X

The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.

If Special Exception is granted a landscape plan is required per the requirements of the Landscape Manual, Bill No. 37-17 and the CMDP. Specific landscape comments:

1. Freeland and Oakland Roads are Baltimore County Scenic Routes,
2. Perimeter landscape buffers are required,
3. Must minimize tree and vegetation removal,
4. Solar panels are considered a utility and should be designed and located to harmonize with the surroundings and to create the least visual impact. (See Comment # 8, 9, & 10 below),
5. Additional landscape buffers (including contour strip buffers) may be required to address existing topography changes, Scenic Views, Scenic Routes, etc. depending on a number of items including the subject properties topography,
6. More comments may be rendered during review of the landscape plan,
7. Proposed perimeter fence shall be black vinyl-coated chain-link fence,
8. Proposed landscape screening should begin at or near the 632 Freeland Road Residence located at the southwest corner of the subject property on Oakland Road and extend eastward along Oakland Road approximately 1,000 feet to assure screening of the solar array field from Oakland Road views.
9. Both 21712 and 21722 Orwig Road are adjacent properties that need to be reviewed for possible landscape screening to be designed and installed between their property and the proposed solar facility.
10. The proposed 20-foot access road may need to have a chicane or bends to assure screening of the solar array field from Oakland Road views if landscape screening does not.
11. Additional landscape and screening may be needed to address adjacent properties views when it relates to the proposed solar facility.

Developer/Owner to grant 10-foot wide Highway Widening along frontage of Oakland Road as well as Freeland Road, at no cost to the County.

* * * * *

VKD: cen
cc: file

ORDER RECEIVED FOR FILING
Date 4/3/18
By Sen

BALTIMORE COUNTY, MARYLAND
INTER-OFFICE MEMORANDUM

TO: Arnold Jablon
Deputy Administrative Officer and
Director of Permits, Approvals and Inspections

DATE: 3/27/2018

FROM: Andrea Van Arsdale
Director, Department of Planning

RECEIVED
MAR 29 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

SUBJECT: **ZONING ADVISORY COMMITTEE COMMENTS**
Case Number: 18-194

INFORMATION:
Property Address: 632 Freeland Road
Petitioner: Charles Gary Atkinson, Stephen Gordon Atkinson
Zoning: RC 2
Requested Action: Special Exception

The Department of Planning has reviewed the petition for a special exception to use the property for a solar facility.

A site visit was conducted on February 15, 2018. The site is situated in proximity to, but not contiguous with, two substantial agricultural preservation easements.

The Department has no objection to granting the petitioned zoning relief conditioned upon the following firmly held condition:

- The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg.177). The CMDP further states "*designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit.*" (CMDP pg.175). The Master Plan 2020 confirms that the "*preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents.*" (MP2020 pg.99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg.177).

- Any landscape plan submitted for review and approval shall reflect the following Scenic Route requirements:
The Department will not support an unbroken planted screen along and adjacent to the Oakland and Freeland Road frontages. The Department recommends that any landscape screening be specific to the solar compound (compound) in its location. This would take the form of a mix of native deciduous, evergreen and flowering trees with understory shrubs situated in beds having a minimum width of 30' which would ring the compound. The landscape screening would flair out in a naturalistic way to engage the existing conse

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Date 4/3/18
By

of trees situated on the east of the compound and also extend a planted mass projecting from the southwest corner of the compound outwards to the edge of Oakland Road. If treated in this fashion, no further planting is required along the scenic routes thus preserving the existing expansive view for that time in the future such as the solar compound is removed.

The following conditions are offered in addition to the above:

- If approved, Petitioners shall submit to this Department at the time of building permit application the final fixed location and area of the facility by coordinate data so that an inventory may be kept.
- Lighting shall be limited to what is required for security purposes only and will be sited in such a way as to have minimal spillage onto neighboring properties.
- Signage shall be limited to that which is necessary for safety and security purposes.
- No deliveries or outdoor maintenance which may generate excessive noise may occur on-site between the hours of 6 P.M. through 6 A.M
- Pursuant to BCZR §502.1.A, petitioners shall demonstrate to the satisfaction of the Administrative Law Judge that the facility will not be detrimental to the adjacent residential properties as a result of glare emanating from the facility.

For further information concerning the matters stated herein, please contact Wally Lippincott at 410-887-3480.

Prepared by:

Lloyd T. Moxley

Deputy Director:

Jeff Mayhew

AVA/KS/LTM/

c: Wally Lippincott
James Hermann, R.L.A., Department of Permits, Approvals and Inspections
Adam M. Rosenblatt, Esquire
Office of the Administrative Hearings
People's Counsel for Baltimore County

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Date 4/3/18
By

3-30

RECEIVED
MAR 14 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

BALTIMORE COUNTY, MARYLAND

Inter-Office Correspondence

TO: Hon. Lawrence M. Stahl; Managing Administrative Law Judge
Office of Administrative Hearings

FROM: Jeff Livingston, Department of Environmental Protection and Sustainability (EPS) - Development Coordination

DATE: March 13, 2018

SUBJECT: DEPS Comment for Zoning Item # 2018-0194-X
Address 632 Freeland Road
(Atkinson Property)

Zoning Advisory Committee Meeting of **February 16, 2018.**

X The Department of Environmental Protection and Sustainability offers the following comments on the above-referenced zoning item:

X Development of the property must comply with the Regulations for the Protection of Water Quality, Streams, Wetlands and Floodplains (Sections 33-3-101 through 33-3-120 of the Baltimore County Code).

X Development of this property must comply with the Forest Conservation Regulations (Sections 33-6-101 through 33-6-122 of the Baltimore County Code).

Additional Comments:

1. In order to meet State – mandated stormwater management requirements and minimize water quality impacts, the project must be designed and constructed in accordance with the attached Maryland Department of the Environment solar panel installation guidance document as part of the permit approval process.

2. Construction and operation of this solar facility must comply with Article 4E, Sections 104, 106, and 107 of County Code, in that all onsite streams, wetlands, associated buffers, and forest shall be adequately protected.

Reviewer: Stephen Ford, Development Coordination
Libby Errickson, Environmental Impact Review

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Date 4/3/18
By

MDE Maryland Department of the Environment

Stormwater Design Guidance – Solar Panel Installations

Revisions to Maryland's Stormwater Management regulations in 2010 require that environmental site design (ESD) be used to the maximum extent practicable (MEP) to mimic natural hydrology, reduce runoff to reflect forested wooded conditions, and minimize the impact of land development on water resources. This applies to any residential, commercial, industrial or institutional development where more than 5,000 square feet of land is disturbed. Consequently, stormwater management must be addressed even when permeable features like solar panel installations exceed 5,000 square feet of land disturbance.

Depending on local soil conditions and proposed imperviousness, the amount of rainfall that stormwater requirements are based on varies from 1.0 to 2.6 inches. However, addressing stormwater management does not mean that structural or micro-scale practices must be constructed to capture and treat large volumes of runoff. Using nonstructural techniques like disconnecting impervious cover reduces runoff by promoting overland filtering and infiltration. Commonly used with smaller or narrower impervious areas like driveways or open roads, the disconnection of non-rooftop runoff technique (see PP. 5.61 to 5.65 of the 2000 Maryland Stormwater Design Manual) is a low cost alternative for treating runoff in situations like rows of solar panels.

When non-rooftop disconnection is used to treat runoff, the following factors should be considered:

- The vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar panels)
- Runoff must sheet flow onto and across vegetated areas to maintain the disconnection.
- Disconnections should be located on gradual slopes (≤ 5%) to maintain sheet flow. Level spreaders, terraces, or berms may be used to maintain sheet flow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment, and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Typically this maintenance is no different than other lawn or landscaped areas. However, areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction.

Depending on the layout and number of panels installed, the disconnection of non-rooftop runoff technique may address some or all of the stormwater management requirements for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. In these situations, other ESD techniques or micro-scale practices may be needed to provide stormwater management for these features.

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By

Example 1 – Using Non-Rooftop Disconnection Where the Average Slope ≤5%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

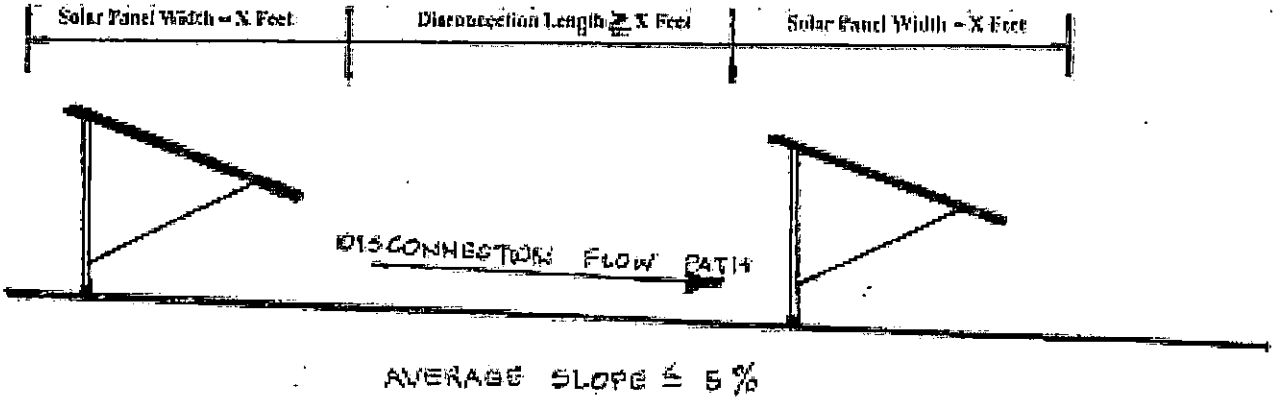

Figure 1. Typical Installation – Slope ≤5%

Example 2 – Using Non-Rooftop Disconnection Where the Average Slope ≥5% but ≤10%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2 foot wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheet flow.

Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.

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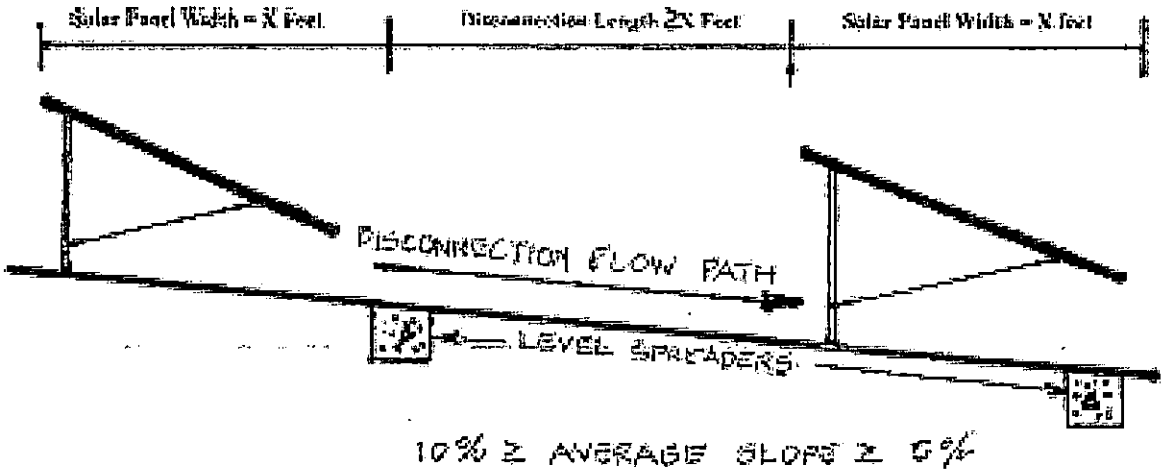

Figure 2. Typical Installation – Slope ≥5% but ≤10%

Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

Resources

1 2000 Maryland Stormwater Design Manual, Volumes I and II, MDE, October 2000 (http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwaterdesign/index.aspx)

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Date 4/3/18
By

PLEASE PRINT CLEARLY

CASE NAME 2018-0194-X
CASE NUMBER
DATE 3/30/2018

PETITIONER'S SIGN-IN SHEET

NAME	ADDRESS	CITY, STATE, ZIP	E - MAIL
Adam Rosenblatt	210 W. Penn. Suite 500		amrosenblatt@gandd.com
Patsy Malore	Towson MD 21204		pamalore@verizon.net
ERIC ANDERSON	21601 KELLER RD FREELAND 21053		ericanderson@comcast.net
Steve Piesca	2912 Hunter Mill Rd 21161		huntermill@Gmail.com
David Wagner	21820 Beallsville Rd, 20838		Wagner@ccrenew.com
JOHN DOUGLAS	3008 Keswick Rd, 21211		jdouglas@dmw.com
Marni Carroll	4436 Albon Pl NW Washington DC 20016		marni@renewenergyrenewables.com
Kate Larkin			
Matthew Durette			
HENRY FAWELL	1311 BLACKWALNUT CT ANNAPOLIS, MD 21403		HENRYFAWELL@GMAIL.COM
MKellman	501 Fairmount Ave, Ste 300	Towson, MD	MKellman@dmw.com

PLEASE PRINT CLEARLY

CASE NAME 2018-0194-X
CASE NUMBER
DATE 3-30-2018

CITIZEN'S SIGN - IN SHEET

NAME	ADDRESS	CITY, STATE, ZIP	E - MAIL
CYNNE JONES	815 STABLERS CHURCH	21120	
KATHLEEN PIEPER	4310 BECKLEYSVILLE RD	21074	
BEVERLY SCAVONE	20220 MIDDLETOWN RD	21053	
SALVATORE SCAVONE	20220 MIDDLETOWN RD	21053	
GEORGE HARMAN	5419 WEYWOOD DR, REISTERSTOWN	21136	
Mike Pierce	7448 Bradshaw Kingsville	21087	MPIERCE1@AOL.COM

ZAC
Comments

ARNOLD JABLON
Deputy Administrative Officer
Director, Department of Permits,
Approvals & Inspections

March 23, 2018

Charles Gary Atkinson
Stephen Gordon Atkinson
632 Freeland Road
Freeland MD 21053

RE: Case Number: 2018-0194 X, Address: 632 Freeland Road

To Whom It May Concern:

The above referenced petition was accepted for processing **ONLY** by the Bureau of Zoning Review, Department of Permits, Approvals, and Inspection (PAI) on January 25, 2018. This letter is not an approval, but only a **NOTIFICATION.**

The Zoning Advisory Committee (ZAC), which consists of representatives from several approval agencies, has reviewed the plans that were submitted with your petition. All comments submitted thus far from the members of the ZAC are attached. These comments are not intended to indicate the appropriateness of the zoning action requested, but to ensure that all parties (zoning commissioner, attorney, petitioner, etc.) are made aware of plans or problems with regard to the proposed improvements that may have a bearing on this case. All comments will be placed in the permanent case file.

If you need further information or have any questions, please do not hesitate to contact the commenting agency.

Very truly yours,

W. Carl Richards, Jr.
Supervisor, Zoning Review

WCR: jaw

Enclosures

c: People's Counsel
Adam Rosenblatt, Esquire, 210 W Pennsylvania Avenue, Suite 500, Towson MD 21204
OneEnergy Development LLC, Travis Bryan, 2003 Western Avenue, Suite 225
Seattle Washington 98121

MARYLAND DEPARTMENT
OF TRANSPORTATION

STATE HIGHWAY
ADMINISTRATION

Larry Hogan
Governor

Boyd K. Rutherford
Lt. Governor

Pete K. Rahn
Secretary

Gregory Slater
Administrator

Date: 2/14/18

Ms. Kristen Lewis
Baltimore County Office of
Permits and Development Management
County Office Building, Room 109
111 West Chesapeake Avenue
Towson, Maryland 21204

Dear Ms. Lewis:

Thank you for the opportunity to review your referral request on the subject of the Case number referenced below. We have determined that the subject property does not access a State roadway and is not affected by any State Highway Administration projects. Therefore, based upon available information this office has no objection to Baltimore County Zoning Advisory Committee approval of Case No. 2018-0194-X
Special Exception.
Charles Gary Atkinson & Stephen Gordon Atkinson
632 Freeland Road.

Should you have any questions regarding this matter, please contact Mr. Richard Zeller at 410-229-2332 or 1-866-998-0367 (in Maryland only) extension 2332, or by email at (rzeller@sha.state.md.us).

Sincerely,

Richard A Zeller

for Wendy Wolcott, P.L.A.
Metropolitan District Engineer
Maryland Department of Transportation
State Highway Administration
District 4 - Baltimore and Harford Counties

WW/RAZ

BALTIMORE COUNTY, MARYLAND

INTEROFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Department of Permits, Approvals
And Inspections

DATE: March 1, 2018

FROM: Vishnu Desai, Supervisor
Bureau of Development Plans Review

SUBJECT: Zoning Advisory Committee Meeting
For February 12, 2018
Item No. 2018-0194-X

The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.

If Special Exception is granted a landscape plan is required per the requirements of the Landscape Manual, Bill No. 37-17 and the CMDP. Specific landscape comments:

1. Freeland and Oakland Roads are Baltimore County Scenic Routes,
2. Perimeter landscape buffers are required,
3. Must minimize tree and vegetation removal,
4. Solar panels are considered a utility and should be designed and located to harmonize with the surroundings and to create the least visual impact. (See Comment # 8, 9, & 10 below),
5. Additional landscape buffers (including contour strip buffers) may be required to address existing topography changes, Scenic Views, Scenic Routes, etc. depending on a number of items including the subject properties topography,
6. More comments may be rendered during review of the landscape plan,
7. Proposed perimeter fence shall be black vinyl-coated chain-link fence,
8. Proposed landscape screening should begin at or near the 632 Freeland Road Residence located at the southwest corner of the subject property on Oakland Road and extend eastward along Oakland Road approximately 1,000 feet to assure screening of the solar array field from Oakland Road views.
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Developer/Owner to grant 10-foot wide Highway Widening along frontage of Oakland Road as well as Freeland Road, at no cost to the County.

* * * * *

VKD: cen
cc: file

RECEIVED
MAR 14 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

BALTIMORE COUNTY, MARYLAND

Inter-Office Correspondence

TO: Hon. Lawrence M. Stahl; Managing Administrative Law Judge
Office of Administrative Hearings

FROM: Jeff Livingston, Department of Environmental Protection and Sustainability (EPS) - Development Coordination

DATE: March 13, 2018

SUBJECT: DEPS Comment for Zoning Item # 2018-0194-X
Address 632 Freeland Road
(Atkinson Property)

Zoning Advisory Committee Meeting of **February 16, 2018**.

X The Department of Environmental Protection and Sustainability offers the following comments on the above-referenced zoning item:

X Development of the property must comply with the Regulations for the Protection of Water Quality, Streams, Wetlands and Floodplains (Sections 33-3-101 through 33-3-120 of the Baltimore County Code).

X Development of this property must comply with the Forest Conservation Regulations (Sections 33-6-101 through 33-6-122 of the Baltimore County Code).

Additional Comments:

1. In order to meet State – mandated stormwater management requirements and minimize water quality impacts, the project must be designed and constructed in accordance with the attached Maryland Department of the Environment solar panel installation guidance document as part of the permit approval process.

2. Construction and operation of this solar facility must comply with Article 4E, Sections 104, 106, and 107 of County Code, in that all onsite streams, wetlands, associated buffers, and forest shall be adequately protected.

Reviewer: Stephen Ford, Development Coordination
Libby Errickson, Environmental Impact Review

MDE Maryland Department of the Environment

Stormwater Design Guidance – Solar Panel Installations

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Example 1 – Using Non-Rooftop Disconnection Where the Average Slope ≤5%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

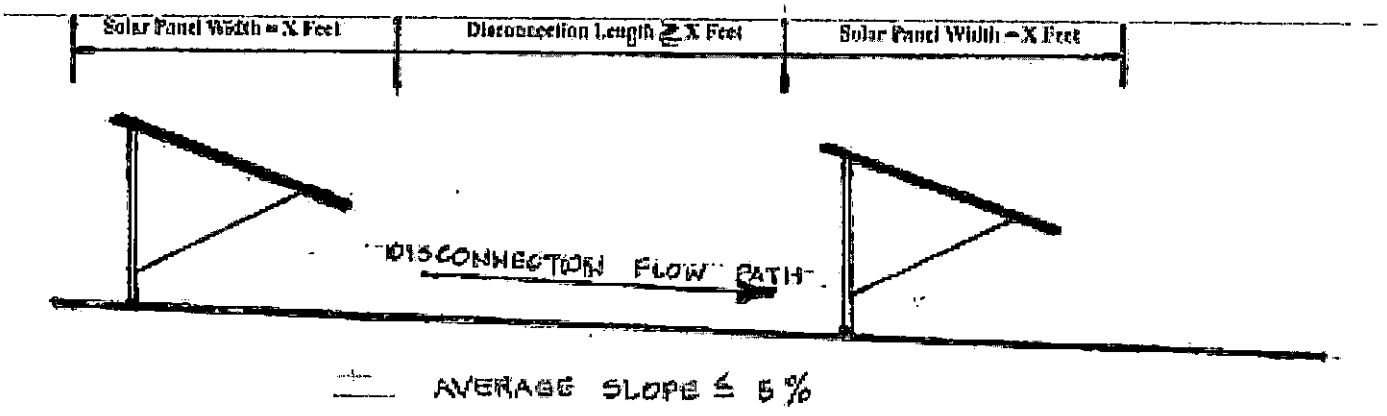


Figure 1. Typical Installation – Slope ≤5%

Example 2 – Using Non-Rooftop Disconnection Where the Average Slope ≥5% but ≤10%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2 foot wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheet flow.

Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.

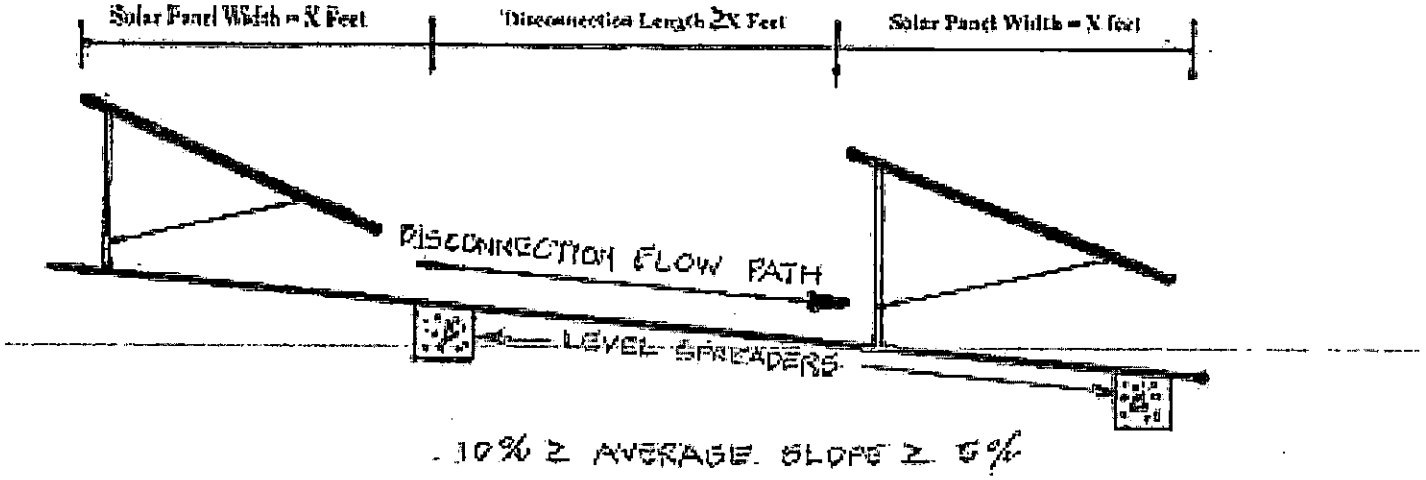


Figure 2. Typical Installation – Slope ≥5% but ≤10%

Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

Resources

1 2000 Maryland Stormwater Design Manual, Volumes I and II, MDE, October 2000 (http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx)

BALTIMORE COUNTY, MARYLAND
INTER-OFFICE MEMORANDUM

TO: Arnold Jablon
Deputy Administrative Officer and
Director of Permits, Approvals and Inspections

DATE: 3/27/2018

FROM: Andrea Van Arsdale
Director, Department of Planning

RECEIVED
MAR 29 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

SUBJECT: **ZONING ADVISORY COMMITTEE COMMENTS**
Case Number: 18-194

INFORMATION:
Property Address: 632 Freeland Road
Petitioner: Charles Gary Atkinson, Stephen Gordon Atkinson
Zoning: RC 2
Requested Action: Special Exception

The Department of Planning has reviewed the petition for a special exception to use the property for a solar facility.

A site visit was conducted on February 15, 2018. The site is situated in proximity to, but not contiguous with, two substantial agricultural preservation easements.

The Department has no objection to granting the petitioned zoning relief conditioned upon the following firmly held condition:

- The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg.177). The CMDP further states "*designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit.*" (CMDP pg.175). The Master Plan 2020 confirms that the "*preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents.*" (MP2020 pg.99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg.177).

- Any landscape plan submitted for review and approval shall reflect the following Scenic Route requirements:
The Department will not support an unbroken planted screen along and adjacent to the Oakland and Freeland Road frontages. The Department recommends that any landscape screening be specific to the solar compound (compound) in its location. This would take the form of a mix of native deciduous, evergreen and flowering trees with understory shrubs situated in beds having a minimum width of 30' which would ring the compound. The landscape screening would flair out in a naturalistic way to engage the existing copse

of trees situated on the east of the compound and also extend a planted mass projecting from the southwest corner of the compound outwards to the edge of Oakland Road. If treated in this fashion, no further planting is required along the scenic routes thus preserving the existing expansive view for that time in the future such as the solar compound is removed.

The following conditions are offered in addition to the above:

- If approved, Petitioners shall submit to this Department at the time of building permit application the final fixed location and area of the facility by coordinate data so that an inventory may be kept.
- Lighting shall be limited to what is required for security purposes only and will be sited in such a way as to have minimal spillage onto neighboring properties.
- Signage shall be limited to that which is necessary for safety and security purposes.
- No deliveries or outdoor maintenance which may generate excessive noise may occur on-site between the hours of 6 P.M. through 6 A.M
- Pursuant to BCZR §502.1.A, petitioners shall demonstrate to the satisfaction of the Administrative Law Judge that the facility will not be detrimental to the adjacent residential properties as a result of glare emanating from the facility.

For further information concerning the matters stated herein, please contact Wally Lippincott at 410-887-3480.

Prepared by:

Lloyd T. Moxley

Deputy Director:

Jeff Mayhew

AVA/KS/LTM/

c: Wally Lippincott
James Hermann, R.L.A., Department of Permits, Approvals and Inspections
Adam M. Rosenblatt, Esquire
Office of the Administrative Hearings
People's Counsel for Baltimore County

KEVIN KAMENETZ
County Executive

ARNOLD JABLON
Deputy Administrative Officer
Director, Department of Permits,
Approvals & Inspections

February 23, 2018

NOTICE OF ZONING HEARING

The Administrative Law Judge of Baltimore County, by authority of the Zoning Act and Regulations of Baltimore County, will hold a public hearing in Towson, Maryland on the property identified herein as follows:

CASE NUMBER: 2018-0194-X
632 Freeland Road
NW corner of the intersection of Freeland and Oakland Roads
7th Election District – 3rd Councilmanic District
Legal Owners: Charles Gary Atkinson, Stephen Gordon Atkinson
Lessee: OneEnergy Development, LLC

Special Exception for a Solar Facility; and for such other and further relief as the Administrative Law Judge may require.

Hearing: Friday, March 30, 2018 at 1:30 p.m. in Room 205, Jefferson Building,
105 West Chesapeake Avenue, Towson 21204

Arnold Jablon
Director

AJ:kl

C: Adam Roseblatt, 210 W Pennsylvania Avenue, Ste. 500, Towson 21204
Travis Bryan, 2003 Western Avenue, Ste. 225, Seattle, Washington 98121

NOTES: (1) **THE PETITIONER MUST HAVE THE ZONING NOTICE SIGN POSTED BY AN APPROVED POSTER ON THE PROPERTY BY SATURDAY, MARCH 10, 2018.**
(2) HEARINGS ARE HANDICAPPED ACCESSIBLE; FOR SPECIAL ACCOMMODATIONS PLEASE CALL THE ADMINISTRATIVE HEARINGS OFFICE AT 410-887-3868.
(3) FOR INFORMATION CONCERNING THE FILE AND/OR HEARING, CONTACT THE ZONING REVIEW OFFICE AT 410-887-3391.

RE:	PETITION FOR VARIANCE 632 Freeland Road; NW corner of intersection of Freeland Road & Oakland Road 7th Election & 3rd Councilmanic Districts Legal Owner(s): Charles & Stephen Atkinson Contract Purchaser: OneEnergy Development LLC Petitioner(s)	*	BEFORE THE OFFICE OF ADMINSTRATIVE HEARINGS FOR BALTIMORE COUNTY 2018-194-X

* * * * * * * * * * * * *

ENTRY OF APPEARANCE

Pursuant to Baltimore County Charter § 524.1, please enter the appearance of People's Counsel for Baltimore County as an interested party in the above-captioned matter. Notice should be sent of any hearing dates or other proceedings in this matter and the passage of any preliminary or final Order. All parties should copy People's Counsel on all correspondence sent and all documentation filed in the case.

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

RECEIVED
FEB 15 2018

Carole S Demilio

CAROLE S. DEMILIO
Deputy People's Counsel
Jefferson Building, Room 204
105 West Chesapeake Avenue
Towson, MD 21204
(410) 887-2188

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 15th day of February, 2018, a copy of the foregoing Entry of Appearance was mailed to Adam Rosenblatt, Esquire, 210 W. Pennsylvania Avenue, Suite 500, Towson, Maryland 21204, Attorney for Petitioner(s).

Peter Max Zimmerman

PETER MAX ZIMMERMAN
People's Counsel for Baltimore County

PETITION FOR ZONING HEARING(S)

To be filed with the Department of Permits, Approvals and Inspections

To the Office of Administrative Law of Baltimore County for the property located at:

Address 632 Freeland Road, Freeland, MD 21053 **which is presently zoned** RC 2

Deed References: 26823/303 10 Digit Tax Account # 0 7 0 1 0 8 9 0 6 0

Property Owner(s) Printed Name(s) Charles Gary Atkinson and Stephen Gordon Atkinson

(SELECT THE HEARING(S) BY MARKING X AT THE APPROPRIATE SELECTION AND PRINT OR TYPE THE PETITION REQUEST)

The undersigned legal owner(s) of the property situate in Baltimore County and which is described in the description and plan attached hereto and made a part hereof, hereby petition for:

1.____ **a Special Hearing** under Section 500.7 of the Zoning Regulations of Baltimore County, to determine whether or not the Zoning Commissioner should approve

2.__X__ **a Special Exception** under the Zoning Regulations of Baltimore County to use the herein described property for SEE ATTACHED

3.____ **a Variance** from Section(s)

of the zoning regulations of Baltimore County, to the zoning law of Baltimore County, for the following reasons: **(Indicate below your hardship or practical difficulty or indicate below "TO BE PRESENTED AT HEARING". If you need additional space, you may add an attachment to this petition)**

TO BE PRESENTED AT HEARING

Property is to be posted and advertised as prescribed by the zoning regulations.

I, or we, agree to pay expenses of above petition(s), advertising, posting, etc. and further agree to and are to be bounded by the zoning regulations and restrictions of Baltimore County adopted pursuant to the zoning law for Baltimore County.

Legal Owner(s) Affirmation: I / we do so solemnly declare and affirm, under the penalties of perjury, that I / We are the legal owner(s) of the property which is the subject of this / these Petition(s).

ORDER RECEIVED FOR FILING
Date 4/3/18
By DEN

Contract Purchaser/Lessee:

SEE ATTACHED
Name- Type or Print

Signature

Mailing Address City State

Zip Code Telephone # Email Address

Legal Owners (Petitioners):

SEE ATTACHED / SEE ATTACHED
Name #1 – Type or Print Name #2 – Type or Print

Signature #1 / Signature # 2

632 Freeland Road Freeland MD
Mailing Address City State

21053 / /
Zip Code Telephone # Email Address

Attorney for Petitioner:

Adam M. Rosenblatt, Esq.
Name- Type or Print

Signature

210 W. Pennsylvania Ave., Suite 500, Towson, MD
Mailing Address City State

21204 / (410) 494-6200 / arosenblatt@venable.com
Zip Code Telephone # Email Address

Representative to be contacted:

Adam M. Rosenblatt, Esq.
Name- Type or Print

Signature

210 W. Pennsylvania Ave., Suite 500, Towson, MD
Mailing Address City State

21204 / (410) 494-6200 / arosenblatt@venable.com
Zip Code Telephone # Email Address

CASE NUMBER 2018-0194-X **Filing Date** 1/25/18 **Do Not Schedule Dates:** _____ **Reviewer** JS

REV. 10/4/11

ATTACHMENT TO
PETITION FOR SPECIAL EXCEPTION

SPECIAL EXCEPTION

1. Petition for Special Exception, pursuant to Section 4E-102 of the Baltimore County Zoning Regulations, for a solar facility.

2. Also, for such further relief as the Administrative Law Judge may require.

ATTACHMENT TO PETITION FOR SPECIAL EXCEPTION

LEGAL OWNERS:

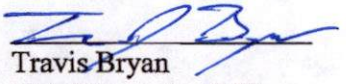
CHARLES GARY ATKINSON

STEPHEN GORDON ATKINSON

ATTACHMENT TO PETITION FOR SPECIAL EXCEPTION

LESSEE:

OneEnergy Development, LLC
2003 Western Avenue, Suite 225
Seattle, Washington 98121
(206) 922-7072

By: 
Name: Travis Bryan
Title: Chief Operating Officer

DAFT McCUNE WALKER

Zoning Description

To Accompany

Special Exception Request

Baltimore County, Maryland

Commencing for the same from the intersection formed by the centerline of Freeland Road, with the centerline of Oakland Road; thence leaving said point and running with the center of said Oakland Road northwesterly approximately 1,904 feet, more or less; thence northeasterly 10 feet, more or less, to the point of beginning; thence leaving said point of beginning and running with the northern side of said Oakland Road the following two courses and distances and referring all courses of this description to the Maryland Coordinate System (NAD-83) (1) North 61 degrees 12 minutes 52 seconds West 69.31 feet; thence (2) North 62 degrees 28 minutes 19 seconds West 53.74 feet; thence (3) North 15 degrees 08 minutes 43 seconds East 84.89 feet; thence leaving said road, (4) North 90 degrees 00 minutes 00 seconds West 99.87 feet; thence (5) North 33 degrees 59 minutes 43 seconds West 46.47 feet; thence (6) North 90 degrees 00 minutes 00 seconds West 384.84 feet; thence (7) North 00 degrees 00 minutes 00 seconds East 470.78 feet; thence (8) North 27 degrees 29 minutes 55 seconds East 728.94 feet; thence (9) North 90 degrees 00 minutes 00 seconds East 473.75 feet; thence (10) South 00 degrees 00 minutes 00 seconds West 1,155.89 feet; thence (11) North 90 degrees 00 minutes 00 seconds West 199.75 feet; thence (13) South 05 degrees 33 minutes 49 seconds West 140.82 feet to the point of beginning; containing 824,547.05 square feet or 18.929 acres, more or less, as now described by Daft-McCune-Walker, Inc. in January 2018.

2018-0194-X

501 Fairmount Avenue, Suite 300, Towson, MD 21286 p: 410 296 3333 f: 410 296 4705 www.dmw.com

THIS DESCRIPTION HAS BEEN PREPARED FOR ZONING PURPOSES ONLY AND IS NOT TO BE USED FOR PROPERTY CONVEYANCE.

January 31, 2018

Project No. 16046 (L16046-1)



1.31.18

CERTIFICATE OF POSTING

2018-0194-X

RE: Case No.: _____

Petitioner/Developer: _____
Charles Gary Atkinson, Stephen Gordon Atkinson
OneEnergy Development, LLC

March 30, 2018

Date of Hearing/Closing: _____

Baltimore County Department of
Permits, Approvals and Inspections
County Office Building, Room 100
111 West Chesapeake Avenue
Towson, Maryland 21204

Attn: Kristen Lewis:

Ladies and Gentlemen:

This letter is to certify under the penalties of perjury that the necessary sign(s) required by law were posted conspicuously on the property located at: _____

632 Freeland Road

March 10, 2018

The sign(s) were posted on _____
(Month, Day, Year)



Sincerely,

_____ **March 10, 2018**
(Signature of Sign Poster) **(Date)**

SSG Robert Black
(Print Name)

1508 Leslie Road
(Address)

Dundalk, Maryland 21222
(City, State, Zip Code)

(410) 282-7940
(Telephone Number)

THE BALTIMORE SUN MEDIA GROUP

501 N. Calvert St., P.O. Box 1377
Baltimore, Maryland 21278-0001
tel: 410/332-6000
800/829-8000

WE HEREBY CERTIFY, that the annexed advertisement of Order No 5487128

Sold To:
VENABLE LLP - CU00174151
210 W Pennsylvania Ave Ste 500
TOWSON,MD 21204-5304

Bill To:
VENABLE LLP - CU00174151
210 W Pennsylvania Ave Ste 500
TOWSON,MD 21204-5304

Was published in "Jeffersonian", "Bi-Weekly", a newspaper printed and published in Baltimore County on the following dates:

Mar 08, 2018



NOTICE OF ZONING HEARING

The Administrative Law Judge of Baltimore County, by authority of the Zoning Act and Regulations of Baltimore County will hold a public hearing in Towson, Maryland on the property identified herein as follows:

Case: # 2018-0194-X
632 Freeland Road
NW corner of the intersection of Freeland and Oakland Roads
7th Election District - 3rd Councilmanic District
Legal Owner(s) Charles Gary Atkinson, Stephen Gordon Atkinson
Lessee: OneEnergy Development, LLC

Special Exception: for a Solar Facility; and for such other and further relief as the Administrative Law Judge may require.
Hearing: Friday, March 30, 2018 at 1:30 p.m. in Room 205, Jefferson Building, 105 West Chesapeake Avenue, Towson 21204.

ARNOLD JABLON, DIRECTOR OF PERMITS, APPROVALS AND INSPECTIONS FOR BALTIMORE COUNTY

NOTES: (1) Hearings are Handicapped Accessible; for special accommodations Please Contact the Administrative Hearings Office at (410) 887-3868.

(2) For information concerning the File and/or Hearing, Contact the Zoning Review Office at (410) 887-3391.

3/035 March 8 5487128

The Baltimore Sun Media Group

By S. Wilkinson

Legal Advertising

DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS
ZONING REVIEW OFFICE

ADVERTISING REQUIREMENTS AND PROCEDURES FOR ZONING HEARINGS

The Baltimore County Zoning Regulations (BCZR) require that notice be given to the general public/neighboring property owners relative to property which is the subject of an upcoming zoning hearing. For those petitions which require a public hearing, this notice is accomplished by posting a sign on the property (responsibility of the legal owner/petitioner) and placement of a notice in a newspaper of general circulation in the County, both at least twenty (20) days before the hearing.

Zoning Review will ensure that the legal requirements for advertising are satisfied. However, the legal owner/petitioner is responsible for the costs associated with these requirements. The newspaper will bill the person listed below for the advertising. This advertising is due upon receipt and should be remitted directly to the newspaper.

OPINIONS MAY NOT BE ISSUED UNTIL ALL ADVERTISING COSTS ARE PAID.

For Newspaper Advertising:

Case Number: 2018-0194-X

Property Address: 632 FREELAND ROAD

Property Description: N/S FREELAND ROAD, 250 FT +/- WEST OF ORWIG ROAD

Legal Owners (Petitioners): CHARLES GARY ATKINSON, et al.

Contract Purchaser/Lessee: ONE ENERGY DEVELOPMENT, LLC

PLEASE FORWARD ADVERTISING BILL TO:

Name: PATRICIA A. MALONE

Company/Firm (if applicable): VENABLE, LLP

Address: 210 W. PENNSYLVANIA AVENUE, SUITE 500
TOWSON, MD 21204

Telephone Number: 410-494-6200

Revised 7/9/2015

Real Property Data Search

Search Result for BALTIMORE COUNTY

View Map	View GroundRent Redemption	View GroundRent Registration

Account Identifier: District - 07 Account Number - 0701089060

Owner Information

Owner Name:	ATKINSON CHARLES GARY ATKINSON STEPHEN GORDON	**Use:** **Principal Residence:**	AGRICULTURAL NO
Mailing Address:	632 FREELAND RD FREELAND MD 21053-	**Deed Reference:**	/26823/ 00303

Location & Structure Information

Premises Address:	632 FREELAND RD FREELAND 21053-	**Legal Description:**	99.46 AC 632 FREELAND RD 4100 FT W YORK RD

Map:	Grid:	Parcel:	Sub District:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:
0003	0019	0017		0000				2017	Plat Ref:

Special Tax Areas:		**Town:**	NONE
		Ad Valorem:	
		Tax Class:	

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
1892	3,900 SF	280 SF	99.4600 AC	05

Stories	Basement	Type	Exterior	Full/Half Bath	Garage	Last Major Renovation
2	YES	STANDARD UNIT	SIDING	2 full		

Value Information

	Base Value	Value As of 01/01/2017	Phase-in Assessments As of 07/01/2017	As of 07/01/2018
Land:	126,600	126,600		
Improvements	160,300	173,500		
Total:	286,900	300,100	291,300	295,700
Preferential Land:	23,100			23,100

Transfer Information

Seller: ATKINSON CHARLES L	**Date:** 03/28/2008	**Price:** $0
Type: NON-ARMS LENGTH OTHER	**Deed1:** /26823/ 00303	**Deed2:**
Seller: ATKINSON V A AG USE 83-84	**Date:** 07/17/1968	**Price:** $0
Type: NON-ARMS LENGTH OTHER	**Deed1:** /00000/ 00197	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**

Exemption Information

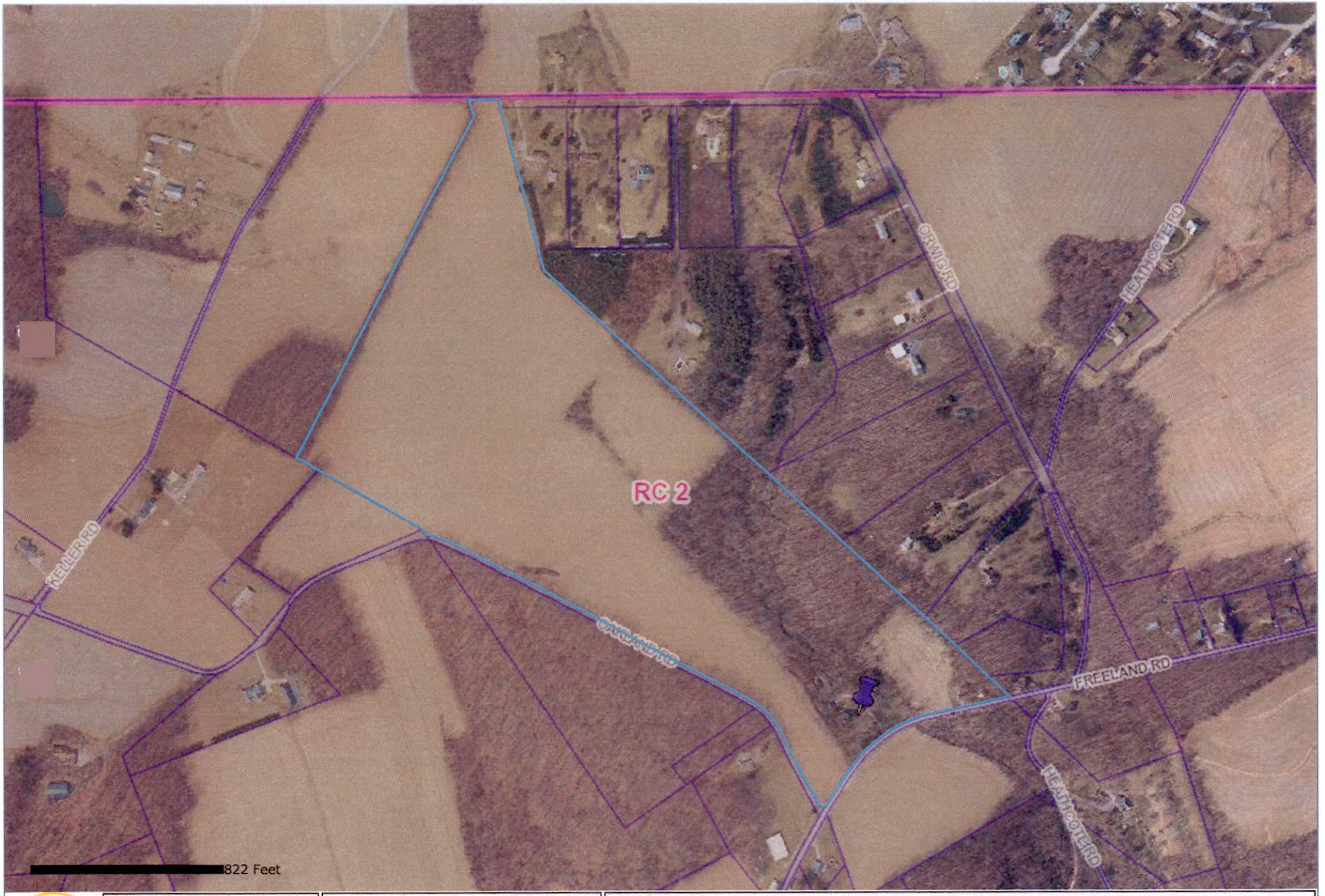
Partial Exempt Assessments:	Class	07/01/2017	07/01/2018
County:	000	0.00	
State:	000	0.00	
Municipal:	000	0.00|0.00	0.00|0.00

Tax Exempt:	**Special Tax Recapture:**
Exempt Class:	AGRICULTURAL TRANSFER TAX

Homestead Application Information

Homestead Application Status: No Application

Homeowners' Tax Credit Application Information	
Homeowners' Tax Credit Application Status: No Application	**Date:**

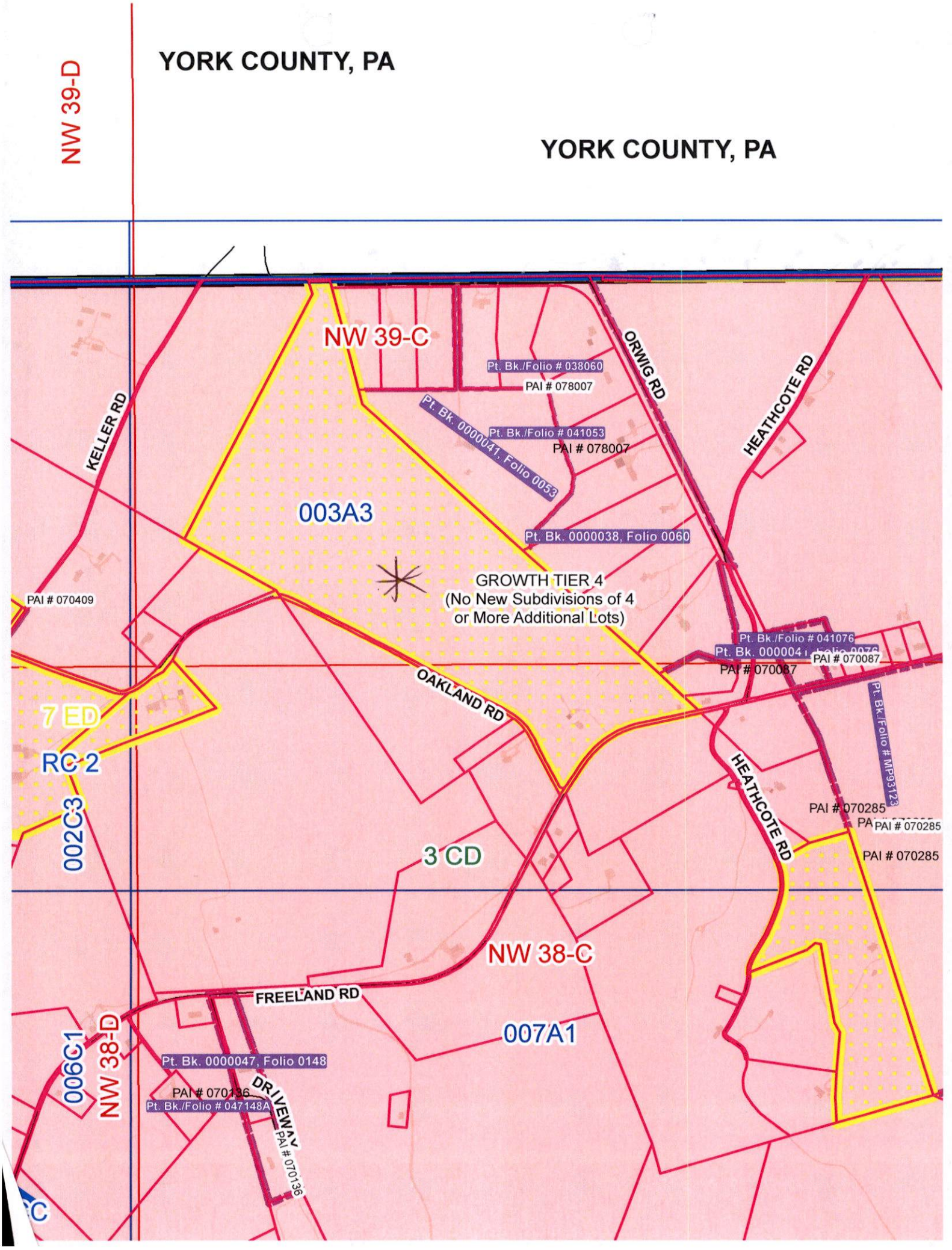


My Neighborhood Map

Created By
Baltimore County
My Neighborhood

This data is only for general information purposes only. This data may be inaccurate or contain errors or omissions. Baltimore County, Maryland does not warrant the accuracy or reliability of the data and disclaims all warranties with regard to the data, including but not limited to, all warranties, express or implied, of merchantability and fitness for any particular purpose. Baltimore County, Maryland disclaims all obligation and liability for damages, including but not limited to, actual, special, indirect, and consequential damages, attorneys' and experts' fees, and court costs incurred as a result of, arising from or in connection with the use of or reliance upon this data.

Printed 10/10/2016


YORK COUNTY, PA
NW 39-D
YORK COUNTY, PA
NW 39-C
KELLER RD
ORWIG RD
HEATHCOTE RD
Pt. Bk./Folio # 038060
PAI # 078007
Pt. Bk. 0000041, Folio 0053
Pt. Bk./Folio # 041053
PAI # 078007
003A3
Pt. Bk. 0000038, Folio 0060
GROWTH TIER 4
(No New Subdivisions of 4
or More Additional Lots)
PAI # 070409
Pt. Bk./Folio # 041076
PAI # 070087
OAKLAND RD
7 ED
RC-2
002C3
Pt. Bk./Folio # MF93123
HEATHCOTE RD
PAI # 070285
PAI # 070285
3 CD
NW 38-C
FREELAND RD
007A1
006C1
NW 38-D
Pt. Bk. 0000047, Folio 0148
PAI # 070136
Pt. Bk./Folio # 047148A
DRIVEWAY
PAI # 070136

Debra Wiley

From: John E. Beverungen
Sent: Wednesday, March 28, 2018 1:31 PM
To: Teresa Moore
Cc: Debra Wiley
Subject: RE: Hearing on a utility scale solar special exception this Friday, 3/30

Ms. Moore, there is a case (No. 2018-0194-X) on Friday March 30 at 130 for Atkinson on Freeland Rd. My calendar shows that it is still scheduled. I have copied Ms. Wiley and would ask that she confirm it has not been postponed.

From: Teresa Moore [mailto:teresa@thevpc.org]
Sent: Wednesday, March 28, 2018 1:19 PM
To: John E. Beverungen <jbeverungen@baltimorecountymd.gov>
Subject: Hearing on a utility scale solar special exception this Friday, 3/30

Dear ALJ Beverungen,

Can you confirm for me whether or not there is a hearing on the Atkinson (2017-0104) this Friday?
I was updating the hearing schedule and reviewed the files recently and saw this date listed, but it is not on the County's Development Hearing schedule on line:
https://www.baltimorecountymd.gov/MeetingsandEvents/PDM_d3/bymonth/list/3/1/2018
I have been attending the hearings on the utility-scale solar, but am scheduled to be off on Friday, which is Good Friday, so cannot attend this one if indeed it is scheduled for March 30.

I have received several calls about it this morning, so would like to confirm whether or not the hearing is scheduled.

Teresa Moore
Executive Director
Valleys Planning Council
410-337-6877

John E. Beverungen

From: Renee Hamidi <reneehamidi@gmail.com>
Sent: Wednesday, March 28, 2018 12:44 PM
To: John E. Beverungen
Subject: case scheduled for Friday, March 30, 1:30 pm

Dear Judge Beverungen: I just became aware that case 2018-0194A, concerning a special exception for a solar installation at 632 Freeland Road, has been scheduled for Friday at 1:30. I'd like to ask that this case be postponed so that it can be posted on the website 15 days ahead of schedule, as required, and also because Friday is a religious holiday that precludes my ability to attend. Thank you for your attention to this matter.
Regards,
Renee Hamidi

Debra Wiley

From: Kathleen Pieper <kathie@stoneponyrestoration.com>
Sent: Thursday, March 29, 2018 9:28 AM
To: Administrative Hearings; John E. Beverungen
Cc: County Council District 3; Debra Wiley
Subject: URGENT! Fwd: Case No. 2018-0194-X
Attachments: Notice of Adminstrative Hearings.pdf; ATT00001.htm

Dear Judge Beverungen,

Resending again to insure delivery. Note, even Baltimore County Council employees only became aware of this hearing yesterday.

We realize this is very short notice, but ask for this postponement due to special circumstances and the importance of this issue to our community.

Kathie Pieper

Sent from my iPhone

Begin forwarded message:

> **From:** Kathleen Pieper <kathie@stoneponyrestoration.com>
> **Date:** March 28, 2018 at 5:14:03 PM EDT
> **To:** "jbeverungen@baltimorecountymd.gov" <jbeverungen@baltimorecountymd.gov>
> **Subject: Case No. 2018-0194-X**
>
> Dear ALJ Beverungen,
>
> This is a request to postpone the special exception hearing scheduled for 3/30/2018 at 1:30pm on Case No. 2018-0194-X due to insufficient community notice and holiday conflict with community input.
>
> Notice to the community is in conflict with several requirements of Bill 6-18 (attached).
>
> - There are no signs posted at the property address: 632 Freeland Road, Freeland, MD. We recently discovered there is a sign posted over a quarter of a mile back along a side road, Oakland Road, and it is smaller than the required size. Bill 6-18 requires that *"The signs shall be placed within view of a public road where possible and the signs shall measure at least 24" by 36" in size".*
>
> - The hearing has not been listed nor is it currently listed on the Zoning and Development Hearings Calendar webpage or Community Update Newsletter. Bill 6-18 requires: *"posting notice on the county's internet website, including the Zoning and Hearings Calendar and Community Update Newsletter webpages, at least 15 days prior to the hearing".*
>
> March 30, 2018 is a significant Christian holiday, Good Friday. Many individuals in our communities that would like to testify at this hearing are unable to attend due to previous holiday weekend plans. This conflict was exacerbated by insufficient community notice.

If there was ever a situation which exemplifies why Bill 6-18 was needed, this is it.

We would appreciate your postponement of this hearing to enable proper community input.

Kathleen Pieper
President, North County Community Group and
Member, Freeland Legacy Alliance

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2018, Legislative Day No. 3

Bill No. 6-18

Mr. Tom Quirk, Councilman

By the County Council, February 5, 2018

A BILL
ENTITLED

AN ACT concerning

Administrative Hearings – Notice

FOR the purpose amending the notice requirements for certain zoning hearings and development plan hearings; providing for the applicability of the Act; and generally relating to the notice requirements for Administrative Hearings.

BY repealing and re-enacting, with amendments

Sections 32-3-302 (a) and (b) and 32-4-227(b)
Article 32 – Planning, Zoning, and Subdivision Control
Baltimore County Code, 2015

SECTION 1. BE IT ENACTED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the Laws of Baltimore County read as follows:

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter stricken from existing law.
~~Strike-out~~ indicates matter stricken from bill.
Underlining indicates amendments to bill.

ARTICLE 32 – PLANNING, ZONING, AND SUBDIVISION CONTROL

Title 3. Zoning

Subtitle 3. Variances

§ 32-3-302. Same – Hearing Required; Notice.

(a) *In general.* Except as provided in § 32-3-303 of this subtitle, the Department of Permits, Approvals and Inspections shall schedule a public hearing on a petition for a variance, [or] SPECIAL HEARING, OR special exception for a date not less than [21] 30 days and not more than [90] 120 days after the petition is accepted for filing.

(b) *Notice.*

(1) The Department of Permits, Approvals and Inspections shall ensure that notice of the time and place of the hearing relating to the property under petition be provided:

(i) By REQUIRING THE PETITIONER AT PETITIONER'S EXPENSE TO conspicuously ~~posting~~ POST TWO (2) SIGNS OF the notice on the property for a period of at least 20 days before the date of the hearing, AND TO PROVIDE A CERTIFICATE OF POSTING TO THE DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS ON THE DATE OF THE POSTING AND A SECOND CERTIFICATION OF POSTING WITHIN FIVE DAYS OF THE HEARING. THE SIGNS SHALL MEASURE AT LEAST 24 INCHES BY 36 INCHES IN SIZE AND BE PLACED WITHIN VIEW OF A PUBLIC ROAD WHERE POSSIBLE;

(ii) By REQUIRING THE PETITIONER AT PETITIONER'S EXPENSE TO PLACE a notice in at least one newspaper of general circulation IN THE COUNTY at least 20 days before the hearing; and

(iii) By THE COUNTY posting notice on the county's internet website, INCLUDING ON THE ZONING AND DEVELOPMENT HEARINGS CALENDAR AND THE COMMUNITY UPDATE NEWSLETTER WEBPAGES, AT LEAST 15 DAYS BEFORE THE HEARING.

(2) The notice shall provide:

(i) The address of the property under petition or, if not available, a description of the property; and

(ii) The action requested by the petition.

(3) THE ADMINISTRATIVE LAW JUDGE MAY NOT CONSIDER THE PETITION UNLESS NOTICE FOR THE PROPERTY UNDER PETITION HAS BEEN POSTED IN ACCORDANCE WITH THIS SECTION.

Title 4. Development

Subtitle 2. Development Review and Approval Process

§ 32-4-227. Hearing Officer's Hearing – General Requirements.

(b) *Notice.*

(1) At the direction of the county, notice of the date, time, and place of the Hearing Officer's hearing shall be conspicuously posted on the lot, parcel, or tract that is the subject of the Development Plan at least 20 working days before the hearing.

(2) The posting of the notice of the date, time, and place of the Hearing Officer's hearing shall remain posted on the lot, parcel, or tract for at least 15 days before the hearing.

(3) NOTICE OF THE DATE, TIME, AND PLACE OF THE HEARING OFFICER'S HEARING SHALL BE POSTED BY THE COUNTY ON THE COUNTY'S INTERNET

WEBSITE, INCLUDING ON THE ZONING AND DEVELOPMENT HEARINGS CALENDAR AND THE COMMUNITY UPDATE NEWSLETTER WEBPAGES, AT LEAST 15 DAYS BEFORE THE HEARING.

[(3)] (4) The Hearing Officer may not consider the Development Plan unless NOTICE FOR the property subject to the plan has been posted in accordance with this section.

SECTION 2. AND BE IT FURTHER ENACTED, that the requirements of this Act shall not apply to any Zoning Petition or Hearing Officers Hearing filed and scheduled for a hearing prior to the effective date of this Act.

SECTION ~~2~~ 3. AND BE IT FURTHER ENACTED, that this Act, having been passed by the affirmative vote of five members of the County Council, shall take effect on March 19, 2018.

John E. Beverungen

From: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Sent: Thursday, March 29, 2018 12:41 PM
To: John E. Beverungen
Subject: RE: Case No. 2018-0194-X

Judge Beverungen,

Thank you for forwarding this correspondence. To briefly respond, we are aware of Bill 6-18 and the additional requirements for advertising and posting of future zoning and development hearings. However, the Bill does not apply to Case No. 2018-0194-X.

Section 2 of Bill 6-18 states that "the requirements of this Act shall not apply to any zoning petition or hearing officers hearing filed and scheduled for a hearing prior to the effective date of this Act." Section 3 states that the effective date of the Bill is March 19, 2018.

As your file will reflect, this petition was filed on January 25, 2018, and the Hearing Notice was dated February 23, 2018. This case was therefore not filed or scheduled after the effective date of Bill 6-18.

Additionally, Rule 4G of the Rules of Practice and Procedure before the Zoning Commissioner states that requests for postponement shall not be granted "except in extraordinary circumstances" and for reasons of "an unusual and extraordinary nature." No such basis has even been alleged in this case.

The Petitioner is based on the west coast and several expert witnesses have already flown across the county to prepare for and testify at the hearing. It would cause a significant hardship if they were not entitled to proceed as scheduled tomorrow.

Your file will reflect that a sign was posted on the property on March 10, 2018 and that the hearing was advertised in a local newspaper as required for zoning cases filed and scheduled prior to March 19, 2018. The notice served its purpose as the postponement requests show "actual notice" of the scheduled hearing. For these reasons, we would respectfully request that the hearing proceed as scheduled tomorrow.

Thank you for your time and consideration,

Adam M. Rosenblatt, Esq. | Venable LLP
t 410.494.6271 | f 410.821.0147 | m 410.294.9430
210 W. Pennsylvania Avenue, Suite 500, Towson, MD 21204

AMRosenblatt@Venable.com | http://secure-web.cisco.com/1YXcJ2MNtCwkbsOukFHY0rRLmD6Op2MWQd9MVpVVTQ8ITzR2Hcb2mQdLVJw01uNJ3JXaVd_k7GRFRS9RPGTMsC6_jj3v9sPjAdSu3s4p4a6LCuOBkel0hL45nGeSQmqe78TKGcEBpVK7JYI9sG-pJ6VJuLj_PKKW-MnXh52CdapvHi8ssHPOXEGNAjGx2wfo3d0o21CX3biitXoLKUqi5xfxt1QUEsysbY9YrzWNj3R-dhHRIelDh5tL1HAi6TgJGS0GTLvx3euxefrzzinZOBX5WQ8LUcsXvEw-_aZXPoVlih7GSGuK4Z_GPstUCteoCuc-EMF9O5VTMDtsbZYZk7O_QQdlKAjp85DfatgdCnrL4XF5UAW-EDsF5FbgQC5TTHfjwWGfe8RUp0E40z1t9Ysgqb3abRBreKJNsPdDslsmfaUqfXFT1bRlRMsIdu08opH26YiRKKPFcZJ-uXMV36Q/http%3A%2F%2Fwww.Venable.com

From: John E. Beverungen [mailto:jbeverungen@baltimorecountymd.gov]
Sent: Thursday, March 29, 2018 12:05 PM
To: Rosenblatt, Adam M. <AMRosenblatt@Venable.com>
Subject: FW: Case No. 2018-0194-X

Below correspondence received by OAH yesterday.

From: Kathleen Pieper [mailto:kathie@stoneponyrestoration.com]
Sent: Wednesday, March 28, 2018 5:14 PM
To: John E. Beverungen <jbeverungen@baltimorecountymd.gov>
Subject: Case No. 2018-0194-X

Dear ALJ Beverungen,

This is a request to postpone the special exception hearing scheduled for 3/30/2018 at 1:30pm on Case No. 2018-0194-X due to insufficient community notice and holiday conflict with community input.

Notice to the community is in conflict with several requirements of Bill 6-18 (attached).

- There are no signs posted at the property address: 632 Freeland Road, Freeland, MD. We recently discovered there is a sign posted over a quarter of a mile back along a side road, Oakland Road, and it is smaller than the required size. Bill 6-18 requires that *"The signs shall be placed within view of a public road where possible and the signs shall measure at least 24" by 36" in size".*

- The hearing has not been listed nor is it currently listed on the Zoning and Development Hearings Calendar webpage or Community Update Newsletter. Bill 6-18 requires: *"posting notice on the county's internet website, including the Zoning and Hearings Calendar and Community Update Newsletter webpages, at least 15 days prior to the hearing".*

March 30, 2018 is a significant Christian holiday, Good Friday. Many individuals in our communities that would like to testify at this hearing are unable to attend due to previous holiday weekend plans. This conflict was exacerbated by insufficient community notice.

If there was ever a situation which exemplifies why Bill 6-18 was needed, this is it.

We would appreciate your postponement of this hearing to enable proper community input.

Kathleen Pieper
President, North County Community Group and
Member, Freeland Legacy Alliance

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****
This electronic mail transmission may contain confidential or privileged information. If you believe you have received this message in error, please notify the sender by reply transmission and delete the message without copying or disclosing it.
****

John E. Beverungen

From: John E. Beverungen
Sent: Thursday, March 29, 2018 2:06 PM
To: 'arosenblatt@venable.com'; 'reneehamidi@gmail.com'; 'kathie@stoneponyrestoration.com'
Cc: Deborah Wiley (dwiley@baltimorecountymd.gov); Sherry Nuffer (snuffer@baltimorecountymd.gov)
Subject: Case No. 2018-0194-X

The above case is scheduled for hearing on Friday March 30, 2018 at 1:30 p.m. Ms. Hamidi and Ms. Pieper filed (via e-mail) with the Office of Administrative Hearings (OAH) requests to postpone the hearing.

The postponement requests will be denied. Both e-mails referenced Bill No. 6-18, pertaining to notice requirements for administrative hearings. The above case was filed and scheduled before the effective date (i.e., March 19, 2018) of that Bill; as such, pursuant to Section 2 of the Bill, that law does not apply in this case. One e-mail noted that the hearing date falls on a "religious holiday." While that may be the case, it is not a Baltimore County government holiday, and government offices (including the OAH) will be open on Friday March 30.

John Beverungen
ALJ

People's Counsel
CBA Exhibit
14

Baltimore County, Maryland

MASTER PLAN 2020



not increase development densities in the reservoir watersheds.

(2) Complete detailed studies to determine the existing and potential residential densities in resource preservation areas.

(3) Consider limiting residential densities to one dwelling unit per 25-50 acres. Consider limiting density calculation to net density for resource zones.

(4) Delineate and coordinate the public use of resource preservation areas for recreational benefits.

(5) Protect and foster forests and stream systems through conservation easements that prevent the continued fragmentation of these critical resources.

(6) Continue to support State and County programs that encourage sustainable forest management and initiatives to retain forestlands for multiple ecological and economic benefits.

Agricultural Priority Preservation Areas

(Note: Policies and Actions to foster a sustainable agricultural industry may be found in the Economic Vitality section. Preservation of the agricultural land is discussed in the Land Resources section.)

While the County is a national leader for the use of restrictive agricultural zoning and planning for agriculture, there are threats to its continued success. Despite the diligent efforts to maintain and expand the agricultural zoning, incremental development continues to threaten the protection of resources and the viability of the agricultural industry. Zoning and development controls need to be reviewed and strengthened to assure that the goals of the Master Plan and the Baltimore County Zoning Regulations are being achieved.



Policy: Manage land development to limit conflicts with the agricultural industry to safeguard lands preserved through easements.

Actions:

(1) Continue to enforce local policies, ordinances, regulations and procedures that stabilize the agricultural and forest land base.

(2) Review and, if necessary, revise zoning and development standards to promote conditions suitable for production, processing and sale of agricultural products.

(3) Include prime and productive soil standards and a maximum lot size to ensure that large parcels are not split to create large residential lots.

(4) Evaluate increasing the minimum acreage for subdivisions in the RC 2 zone to reduce environmental impacts and development pressure on agricultural resources.

(5) Evaluate regulations to eliminate resubdivision of lots created between 1975 and 1979 in the RC 2 zone.

(6) Require that placement of State agricultural or conservation easements shall not result in an increase in density over that permitted without the easements.

(7) Monitor development within the APPA's to ensure that residential and non-agricultural uses protect the resources and do not overwhelm the operation of agricultural businesses.

(8) In general, zoning changes made in the agricultural priority preservation areas should protect the County's agricultural industry.

(9) Consider adding criteria to the Baltimore County Zoning Regulations (BCZR) to require the evaluation of proposed development impacts on agricultural uses located on prime and productive soils.

(10) Assure that development will have limited impact on active agricultural operations by reviewing, and, if necessary, revising setback requirements.

(11) Review uses permitted by right and special exception in the RC 2 zone to determine whether any uses that are inconsistent with the purpose of the zone should be removed and consider additional performance standards, which will mitigate the impact of the proposed uses on the adjacent farm or easement property.

(12) Enact "Right to Farm" legislation and institute a nuisance mediation board for farm operations.

(13) Consider whether certain institutional uses now permitted in the RC 2, RC 7 and RC 8 zones should be eliminated. Establish performance standards for institutions that are found to not have significant negative impacts if limited by the standards.

Rural Residential Areas

The rural residential areas are a mix of single-family residential development and woodlands, farm fields, stream valleys and areas of significant historic and cultural value. They have accommodated the bulk of new residential development in the rural areas. Associated with rural residential development, there may be institutional uses, such as religious establishments, which are preferred to be located in proximity to residences, rather than in Resource Preservation or Agricultural Priority Preservation Areas. Included in the rural residential land management areas are Parkton, Chestnut Ridge, Hereford, Jacksonville, Kingsville, and Patapsco/ Granite.

The 1979 growth management program designated rural residential areas as suitable for development. The 1989 Master Plan recognized some of the issues created by this choice. The 2000 Master Plan recommended limiting rural residential development. The majority of the land within these areas is zoned RC 5.

The intensity of this development is a suburban residential pattern with densities equal to one dwelling unit per 1-1/2 to 2 acres. Because this rural-suburban residential development is dependent upon well and septic services, the development pattern takes on a haphazard appearance and consumes large quantities of land. This type of development comes at a tremendous cost in terms of traffic, increased infrastructure demands, disruption of the rural character, and adverse impacts on functional values of rural land and water resources.

Policy: Limit suburban development in rural areas.

Actions:

(1) Conduct detailed land use studies to



are important to the agricultural history of Baltimore County and which are located along scenic routes.

(2) Continue to protect designated "view sheds" of historic resources , either by limiting new development within view of the historic resource, or by buffering new development from the view of such resources.

SCENIC RESOURCES

The preservation and enhancement of the scenic resources in Baltimore County is an essential component contributing to the quality of life of residents. Scenic resources consist of scenic corridors, scenic views, and gateways. In 1991, the County adopted a set of development guidelines that have raised awareness and recommended development alternatives for protecting scenic resources.

Scenic Corridors and Views

Most of the scenic corridors and views are located in rural areas. The scenic view map provides the beginning of a list of the views for establishing a comprehensive inventory in the near future. Following the adoption of the 1989 Master Plan, the County produced a series of scenic route maps for each council district, which combined the significant visual and historical elements into self-guided scenic tours. The protection of the Interstate 83 (I-83) corridor in northern Baltimore County is a showcase of the inter-governmental efforts on scenic views preservation.

The endeavor for preserving scenic corridors and views ought to emphasize lands zoned for resource protection including RC 2, RC 4, and RC 7. The County will continue to maintain coordination with the State Highway Administration (SHA) and seek available state and federal funds for protection of scenic corridors and views.

Policy: Preserve scenic corridors and views through proper zoning and coordination with federal and state governments.

Actions:

(1) Coordinate scenic resource management practices with the national and state Scenic Byways Programs.

(2) Continue to preserve properties within the I-83 scenic view shed through easement purchases, as funds are available and through RC4 clustering.

(3) Evaluate proposed improvements to state and county roads and bridges regarding their impact on scenic resources in compliance with the adopted *Rural Roads Standards*. Where public safety allows, the narrow and/or winding character of roads is part of the scenic experience and ought to be preserved.

(4) Assess proposed development impacts on scenic resources.

(5) Clarify language regarding scenic corridors and views protection and make it consistent amongst the Master Plan, Comprehensive Manual of Development Policies, Baltimore County Zoning Regulations, Baltimore County Code, and SHA Context Sensitive Solutions for work on scenic byways.

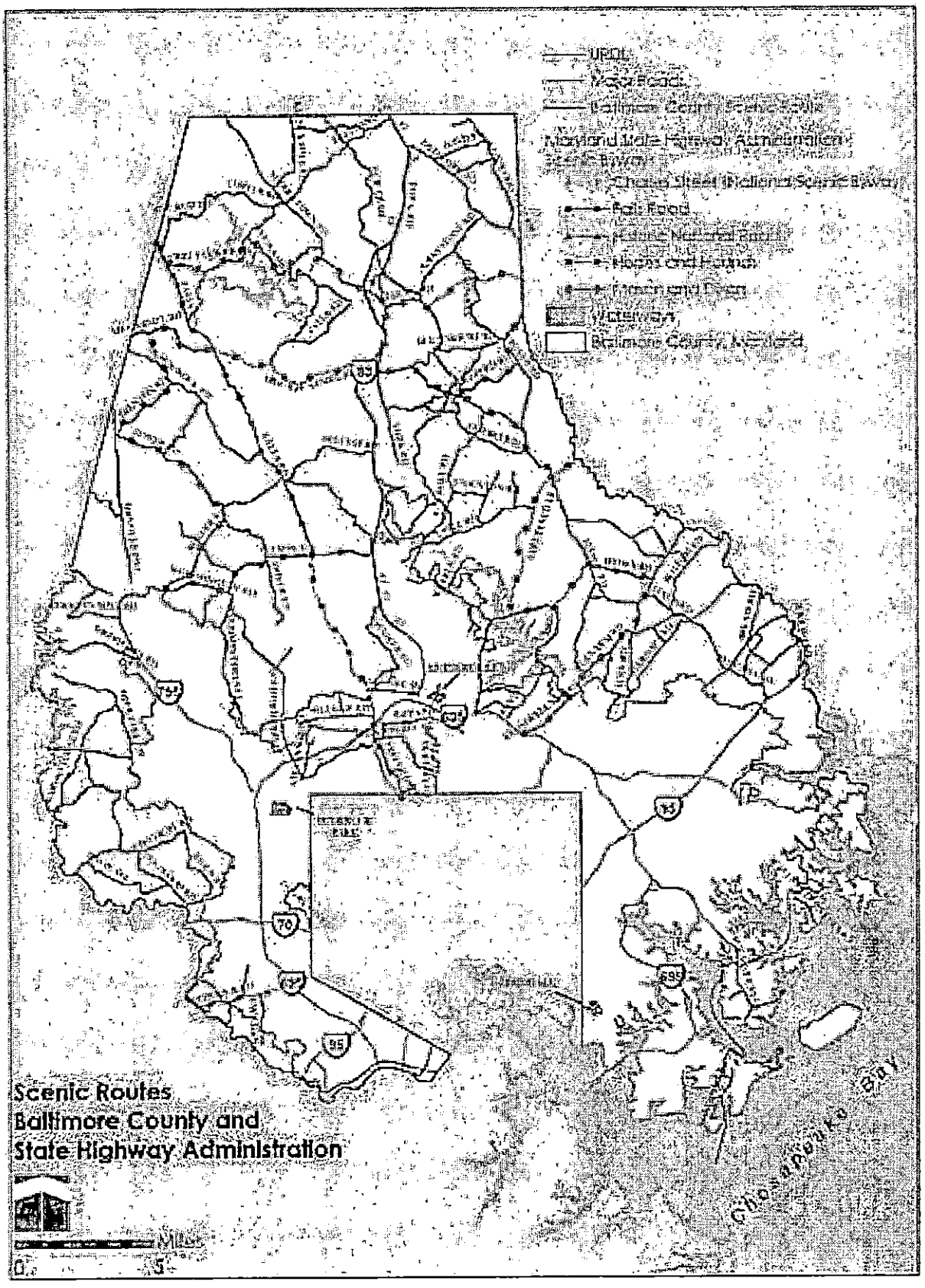
(6) Establish criteria for identifying significant views and geocode them on maps.

(7) Apply a systematic methodology for evaluation of scenic routes and preservation techniques.

(8) Update scenic resources map in accordance

The County has emphasized its efforts on preserving the scenic view shed of I-83 between the Thornton Mill overpass and the Pennsylvania line, which runs through one of the most scenic piedmont areas in the County. Farms, forests, streams and rural homesteads feature both sides of I-83 in northern county. Many properties adjacent to I-83 have been preserved either as parkland or through various easement programs, including donations and purchase of development rights. There has been significant progress in this effort: between Belfast Road and the Gunpowder River, more than half of the scenic corridor has been protected.

Map 26: Scenic Routes



with the most recently adopted state scenic byways.

(9) For properties along scenic routes or within scenic viewsheds, variances, amendments, and special exceptions should be granted sparingly.

Charles Street National Scenic Byway

Charles Street is a main thoroughfare stretching from downtown in the City of Baltimore to Towson in Baltimore County. The County and the City of Baltimore collaborated with interested citizens, civic groups, and state agencies, developing a byway management plan for Charles Street. The purpose of this plan was to prepare for the nomination of Charles Street as a National Scenic Byway. In autumn 2009, the U.S. Secretary of Transportation Ray LaHood designated Charles Street a National Scenic Byway, together with 41 other designations in the nation to the America's Byways® collection. This designation allows the City of Baltimore and Baltimore County to apply for grants for preserving and enhancing scenic characteristics of Charles Street.

Policy: Preserve and enhance the Charles Street National Scenic Byway characteristics.

Actions:

(1) Apply for grants to implement actions outlined in the Baltimore County portion of the Charles Street Byway Management Plan.

(2) Collaborate with the Baltimore County Office of Tourism to prioritize activities in compliance with the Byway Management Plan

County Gateway Designations

Gateways are important elements of the County's visual fabric contributing to the community identity and the sense of transition between urban and rural development. Gateways can be located within either urban or rural areas, and mostly at the boundary between urban and rural areas. The specific design treatment of development for these gateways may vary, depending upon the location and structural type of gateways. In addition, the County worked with the State Highways Administration (SHA) to develop bridge designs along the 695 Beltway that strengthen the sense of arrival into the adjacent communities and promote the community uniqueness.

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States. Since 1992, the National Scenic Byways Program has funded 2,832 projects for state and nationally designated byway routes in 50 states, Puerto Rico and the District of Columbia. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archeological, cultural, historic, natural, recreational and scenic qualities.

Policy: Enhance gateway designations through evaluation, design, and construction.

Actions:

(1) Evaluate existing gateways and identify additional gateways.

(2) Formulate appropriate design guidelines as part of community plans and streetscape projects.

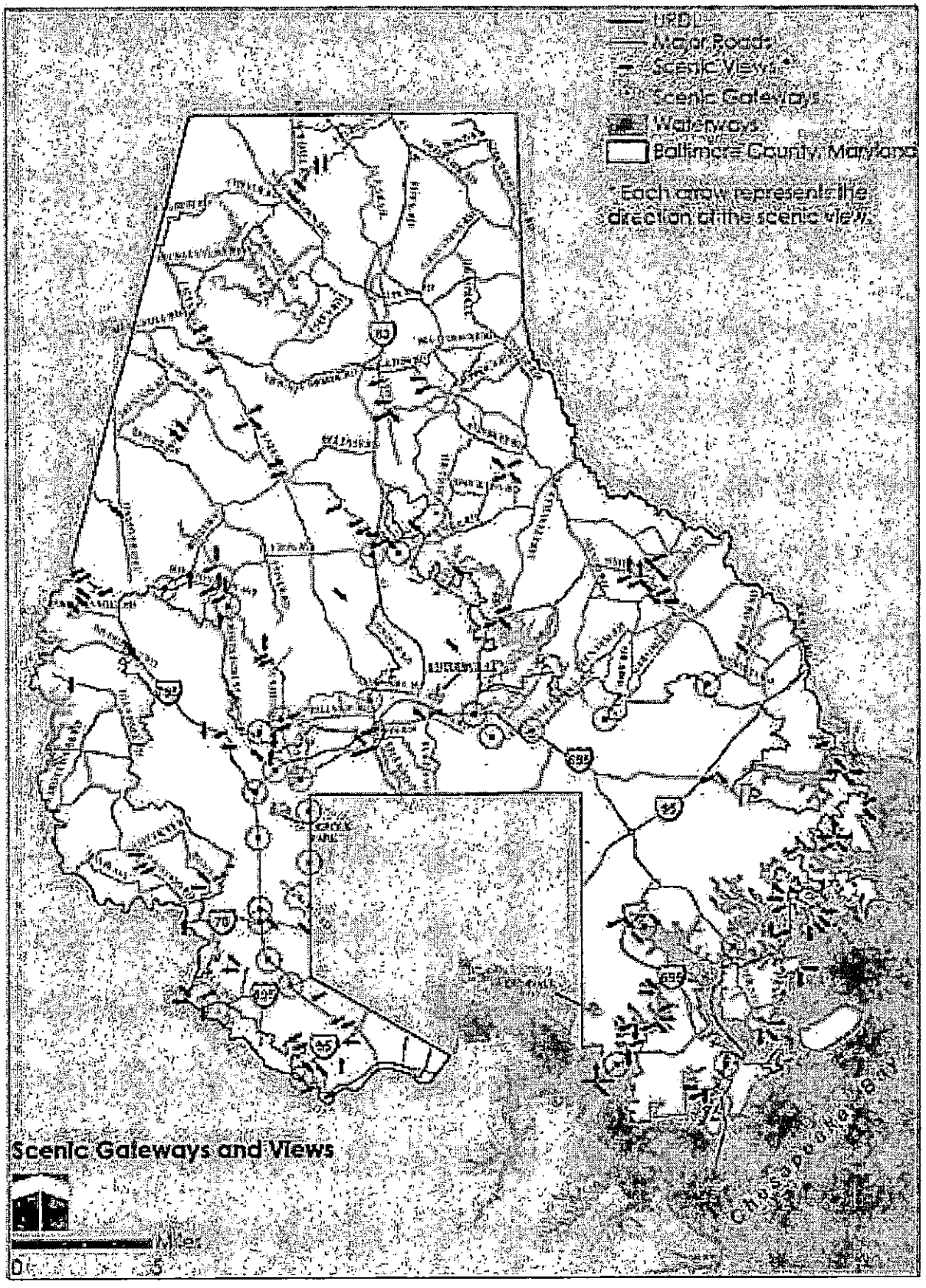
(3) Examine the design aspects of proposed development as part of the development review process.

(4) Develop general guidelines for gateways in the Comprehensive Manual of Development Policies.

(5) Continue to work with SHA to develop bridge designs at gateway locations.

There are numerous gateways in Baltimore County. Prime examples include: (1) The entry to the Cromwell Valley from Towson north of the I-695 Beltway; (2) Crossing the bridge northbound on I-83 passing Shawan Road; (3) The bridge designs over the I-695 Beltway entering Towson at York and Dulaney Valley Roads, Reisterstown at Reisterstown Road, Catonsville at Frederick Road, and on Charles Street; (4) The community logo, landscaping, and old railroad bridge abutment in Towson; and (5) The continuous streetscape along Eastern Avenue, from Route 702 to the bridge at Middle River Road leading to the waterfront communities.

Map 27 - Scenic Gateways and Views



Policy: Continue to implement water quality improvement measures in and along the waterfront, and continue to enforce water quality, forest, and habitat protection components of the State-mandated Critical Area law.

Actions:

(1) Continue to implement the dredging component of the Waterway Improvement Program by maintaining channels and aids to navigation, while monitoring and protecting submerged aquatic vegetation.

(2) Continue efforts to protect shorelines from erosion and improve the water quality and habitat value of tidal wetlands. Use living shoreline measures, where physically feasible, for shoreline stabilization, and enhance tidal wetlands.

(3) Continue to implement the Clean Shore Program to improve the water quality, aesthetics, and navigational safety of the tidal waterways and increase community participation in waterway clean-ups.

(4) Explore beneficial uses of dredge material disposal including shoreline stabilization projects and tidal marsh creation.

(5) Maintain land use and development standards essential for the protection of the Chesapeake Bay's biological integrity.

(6) Create effective opportunities for recreation, tourism, and rural legacy.

(7) Design and plan projects to promote public access to the water and encourage public access to the water on private waterfront development projects, where appropriate.

(8) Consider steering redevelopment efforts along the waterfront into historically disturbed buffer areas in order to maximize water quality protection and improvement.

(9) Consider steering growth allocations involving conversions to Intensely Developed Areas into priority funding areas.

(10) Educate and provide technical assistance for waterfront property owners about the benefits of living shorelines and promote appropriate behaviors to improve water quality.

(11) Evaluate existing private septic systems in the Critical Area for upgrades and connection to the public sewerage system.

(12) Encourage the implementation of clean marina best management practices.

(13) Continue to provide easement programs that provide financial benefits and flexibility of use to farmland owners to permanently preserve their farms and forests.

LAND RESOURCES

The land resources of Baltimore County, which include its minerals, soil, and biota, provide the foundation for economic and community activities. They are also an integral part of natural ecosystem processes, and how land resources are used not only affects terrestrial ecosystems, but also the quality of water and air.

Baltimore County's goals for land preservation are to permanently preserve at least 80,000 acres of land to protect agriculture and natural resources for future generations, recognize and promote sustainable agriculture as a vital economic, commercial and industrial activity, manage development to protect agricultural lands and prevent conflicts between agricultural operations and incompatible uses, and ensure the proper management of agricultural lands to protect water quality and natural resources.

Land preservation goals are achieved through the use of several comprehensive growth management measures: the URDL, zoning classifications, land use regulations, the purchase and donation of permanent conservation easements, and the implementation of recommended actions of the Master Plan.

Agricultural Priority Preservation Areas

The protection of land for agriculture has been a key component of rural growth management in the County for over 40 years. Significant public funds have been invested in the permanent protection of cropland, pasture and woodland to maintain and foster a viable agricultural industry. This forward-looking effort by the County has become more important with the national attention on issues such as energy conservation, sustainability, and national security. Promotion of local farms can improve the quality and security of the local food supply and play a role in solving other environmental problems.

The 1989 Master Plan first designated "Agricultural Preservation Area" boundaries (now called Agricultural Priority Preservation Areas, or APPA's). These areas have been reconfirmed in subsequent plans. APPA's are based on their capability for agricultural production and the existence of agricultural operations and preserved lands.

From 1980 through 2009, more than 55,200 acres have been preserved, including 21,675 acres under the Maryland Agricultural Land Preservation Foundation Program, 4,351 acres under the Baltimore County program, 25,250 acres under the Maryland Environmental Trust, private land trusts, and Rural Legacy programs, and 3,929 acres in R.C.4 cluster conservancy areas. This cumulative preservation achievement represents about 24% of the total land area outside the URDL. Based on a 2006 study by The Conservation Fund, an additional 50,300 undeveloped, unprotected acres met agricultural program criteria. The protection of an additional 30,800 acres will be needed to meet the County's ultimate preservation goal, and the County must seek adequate funding, explore innovative purchase techniques, refine programs, and increase the acreage of donated easements. Based on preservation of 2,100 acres and loss or conversion of 870 acres per year, it is projected that the 80,000-acre goal will be met by the year 2022.

Policy: Permanently preserve at least 80,000 acres of agricultural and natural resource lands through Conservation Easements and other similar legal instruments.

Actions:

(1) Continue to seek and encourage the donation and sale of easements through the various land preservation programs.

(2) Conduct landowner outreach and public education to increase awareness of these conservation programs and garner interest in land protection.

(3) Identify and preserve parcels large enough to support normal agricultural and forestry activities.

(4) Fairly compensate farmers for loss of development rights.

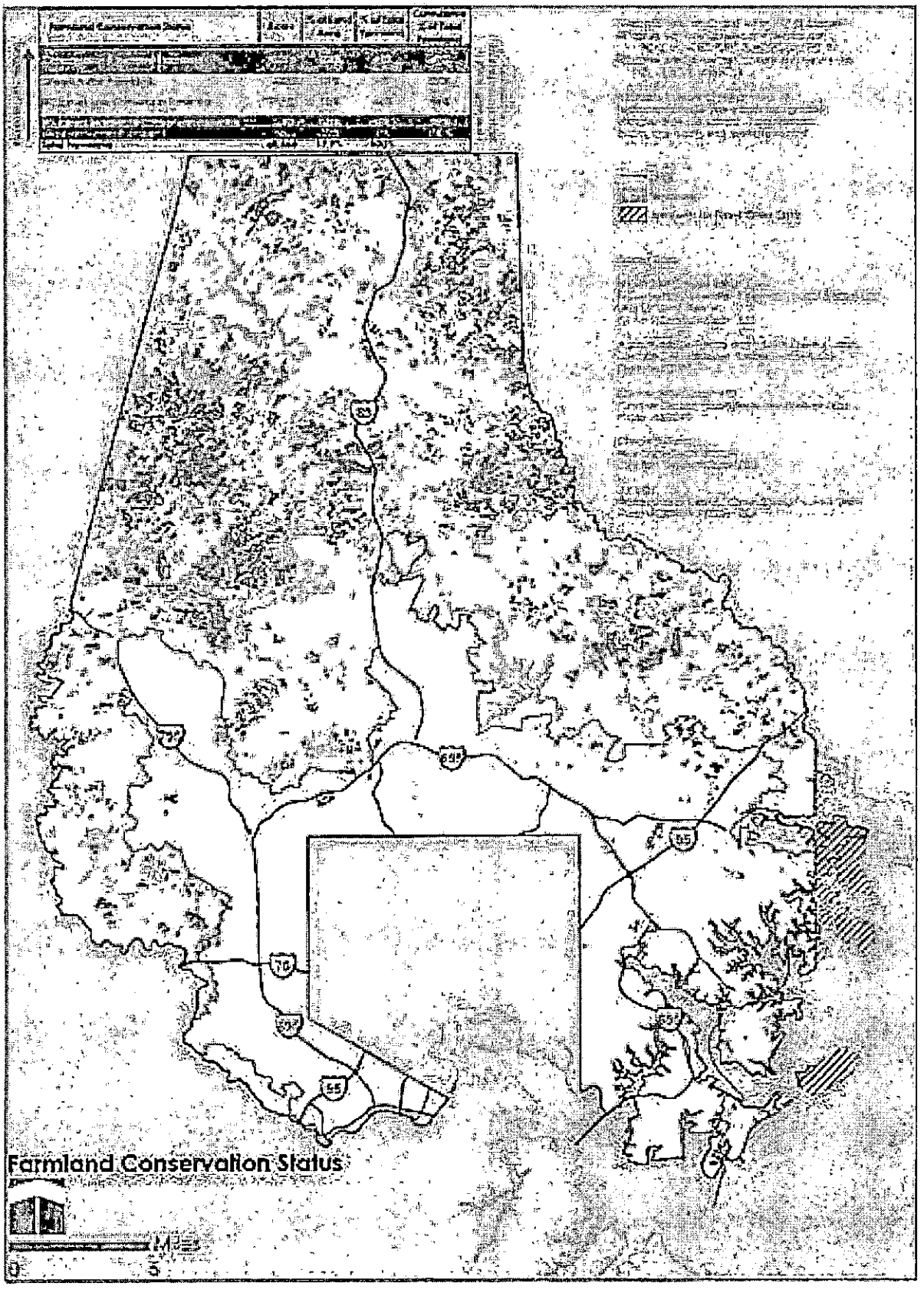
(5) Monitor the Agricultural Priority Preservation Areas to ensure that at least 80% of the remaining undeveloped land is either under easement or temporarily protected by restrictive zoning (such as RC 2).

(6) Work with state and local partners to monitor and steward existing conservation easements to ensure compliance with agreements to protect the County's investments in agricultural land preservation.

Land Preservation Progress

The United States Department of Agriculture states, "Agricultural land preservation constitutes sensible resource management for sustainable agriculture". Baltimore County agrees, and further defines land preservation as an effective management tool for protecting and preserving natural and cultural resources. The County's land preservation efforts are among the most successful in the nation. This success is in part due to the strategy of protecting land in the short term through restrictive resource zoning, and conserving land for the long-term through preservation easements. Perpetual easements are the only way that preservation of the rural landscapes can be guaranteed. Fair compensation to landowners is provided to maintain the land in private ownership. Additionally, preserved privately owned lands stay on the tax roll.

Map 41 : Farmland Conservation Status



COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2010, Legislative Day No. 8

Resolution No. 20-10

All Councilmembers

By the County Council, April 19, 2010

A RESOLUTION of the Baltimore County Council to adopt an amendment to the Baltimore County Master Plan 2010.

WHEREAS, the Baltimore County Council adopted the Baltimore County Master Plan 2010 on February 22, 2000; and

WHEREAS, the Baltimore County Charter requires the Office of Planning to prepare and revise a Master Plan at least every ten years; and

WHEREAS, a portion of the Master Plan 2010 is devoted to advisory policies for the "rural county"; and

WHEREAS, the Baltimore County Office of Planning has prepared an amendment to the rural areas portion of Master Plan 2010, and the Baltimore County Planning Board held public hearings on the proposed amendment and, on January 21, 2010, voted to recommend the amendment to the County Council for adoption as an amendment to Master Plan 2010; and

WHEREAS, the County Charter requires the County Council to consider, accept or modify a proposed Master Plan amendment and to adopt such amendment by legislative act; and

WHEREAS, the County Council held a public hearing on the proposed amendment on March 15, 2010.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the amendment to the rural areas of Master Plan 2010 submitted by the Office of Planning and adopted by the Baltimore County Planning Board, including mapped and written proposals, is hereby amended and modified in accordance with the amendment attached hereto, and as amended and modified, is hereby adopted as an amendment to Master Plan 2010 to serve as a guide for the development of the County, subject to such further modifications as deemed advisable by the Baltimore County Council.

r02010.wpd

AMENDMENTS TO
MASTER PLAN AMENDMENT: RURAL AREAS

1. On page 3, in the second sentence of the paragraph titled "The New Master Plan", strike "However" and substitute the following: "One of the fundamental concepts of Master Plan 2010 is that the orderly development of the Baltimore County community is not a static process. It is subject to the social and economic changes that will naturally occur during the life of the master plan. The policy decisions of the County Council, which are expressed through its law-making power, are the means to address the county's evolving needs. The statements of Master Plan 2010 and the statements of this amendment to Master Plan 2010 are intended to guide the Council in this role. With this latest statement,"

2. On page 7, in the fourth line of the second full paragraph, after "private water wells", strike "and" and substitute ", or other private water sources, and private"

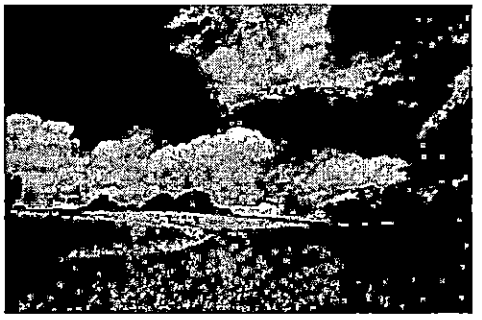
amendment.master plan rural areas.wpd

People's Counsel
CBA Exhibit
15A

BALTIMORE COUNTY, MARYLAND

MASTER PLAN AMENDMENT:

RURAL AREAS



January 21, 2010

James T. Smith, Jr., County Executive

Arnold F. 'Pat' Keller, III, Director,
Office of Planning

Jonas A. Jacobson, Director,
Department of Environmental Protection and Resource Management

For more information:

Web site: http://www.baltimorecountymd.gov/Agencies/planning/masterplanning/index.html

e-mail: masterplan@baltimorecountymd.gov
R. Bruce Seeley, Master Plan Coordinator
410-887-3480

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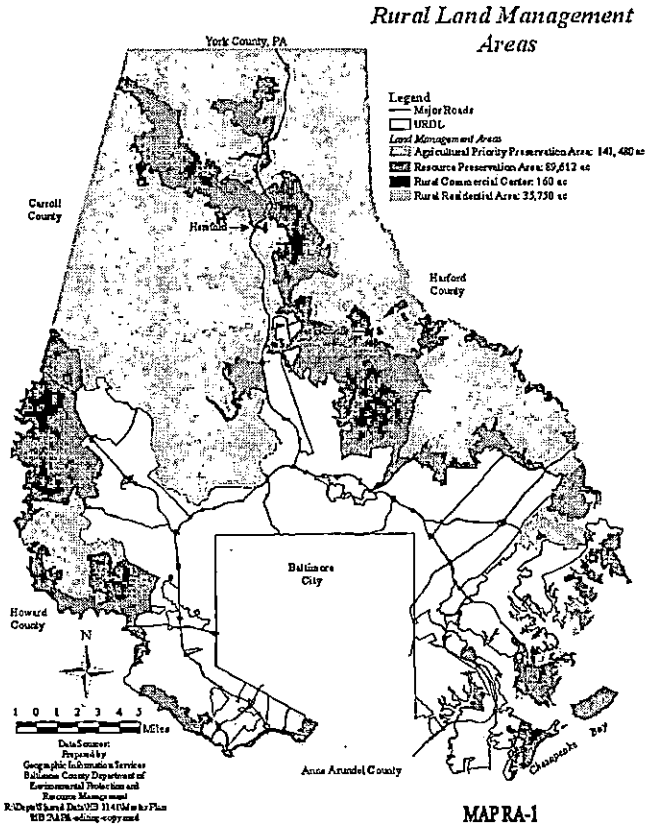
Program, Rural Legacy (State or County), Federal Scenic Highways, Federal Farm and Ranch Protection Program, private land trust easements and cluster easements.



MAP RA-1

AGRICULTURAL PRIORITY PRESERVATION AREAS

The 1989 Master Plan first designated "Agricultural Preservation Area" boundaries. These areas, listed in the following table, were reconfirmed in subsequent plans. The areas are based on their

capability for agricultural production and the existence of agricultural operations and preserved lands.

In 2006, the County hired The Conservation Fund to analyze the agricultural land preservation goal of at least 80,000-acres to determine if the goal was feasible, and to verify the boundaries of the Agricultural Preservation Areas (APA's). At the time, 49,120 acres of rural lands were in preservation. The consultant looked at all parcels outside the URDL, eliminated all developed parcels, and determined a refined set of priority unprotected parcels equaling 50,274 acres (See Table 3). Of that number, 7,500 acres were outside the 1989 Master Plan designated APA's. These results indicated there is sufficient land remaining to meet the 80,000-acre goal, and minor adjustments should be made to the APA's to include additional land.

Table 3
Status of Rural Land Preservation – 2006 Analysis

RURAL LAND	ACRES
Total Land outside of URDL	231,161
Total Land in Preservation	49,120
Total unprotected Land outside URDL	157,319
Unprotected/undeveloped Land that meets Agricultural Program Criteria	50,274
Area Required to meet the minimum 80,000 acre goal	30,880

Source: *The Conservation Fund, 2006 Report*

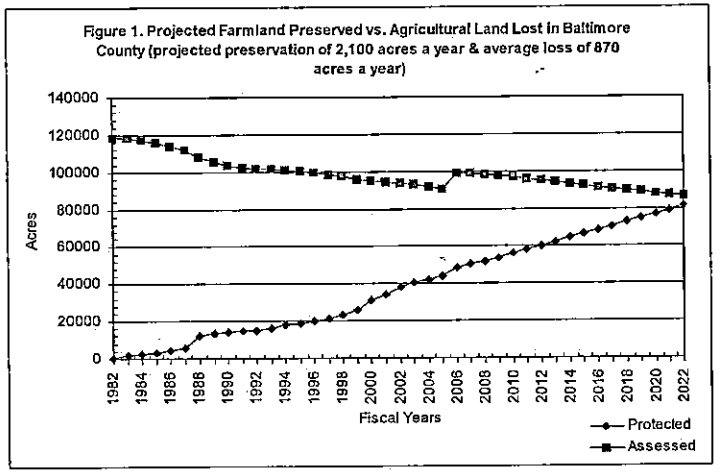
This plan adjusts these areas to include the additional lands, and renames the areas as "Agricultural Priority Preservation Areas" (APPA's). The areas were renamed to conform to HB2.

GENERAL POLICIES

- Permanently preserve lands for agriculture and natural resources to achieve the goal of at least 80,000 acres.
- Recognize and promote sustainable agriculture as a vital economic, commercial, and industrial activity that requires permanent protection.
- Manage development to protect agricultural lands and prevent conflicts between agricultural operations and incompatible uses.
- Ensure the proper management of agricultural lands to protect water quality and natural resources.

Specific Policy: Permanently preserve agricultural and natural resource lands through Conservation Easements and other similar legal instruments

Baltimore County has been in the top ten nationally for agricultural land preservation for the past ten years. The rate of preservation has been plotted against the rate of loss based upon acreage converted through development (Figure 1).



Actions

1. Continue to seek and encourage the donation and sale of easements through the various land preservation programs.
2. Conduct landowner outreach and public education to increase awareness of these conservation programs and garner interest in land protection.
3. Identify and preserve parcels large enough to support normal agricultural and forestry activities.
4. Fairly compensate farmers for loss of development rights.
5. Monitor the Agricultural Priority Preservation Areas to ensure that at least 80% of the remaining undeveloped land is either under easement or temporarily protected by restrictive zoning (such as RC 2).
6. Work with state and local partners to monitor and steward existing conservation easements to ensure compliance with agreements to protect the county's investments in agricultural land preservation.
7. As part of any update to this section of the Master Plan the County will:
   - Determine progress towards meeting the goals of the MALPF;
   - Evaluate any shortcomings in the County's ability to achieve the goals of MALPF;
   - Determine and implement actions to correct identified shortcomings.

Specific Policy: Foster a sustainable agricultural industry

The policy to foster a sustainable agricultural industry has gained a new level of significance with the success of preserving over 50,000 acres of rural land. The County's agricultural industry is diverse and robust with an annual economic production estimated to be $300 million (See Table 4). There is an opportunity now with the land preservation accomplishments and momentum to build an even stronger and more *sustainable* agricultural economy. Without diminishing the support for commodity production, the mainstay of the county's agricultural industry, there clearly is an opportunity for increasing local food production. The benefits of local food production are enormous and include energy conservation, sustainability, food security, and the potential for green jobs for the young people of our County.

Table 4
Total Value Agricultural Sales
(2006)

Crop Products	62,160,000[1]
Nurseries & Greenhouses	124,000,000[2]
Equine	121,800,000[2]
Vegetables	6,398,000[1]

Sources: (1) *Agriculture in Maryland Summary for 2007, MDA* (2) *Baltimore County, MD*

The majority of land in agricultural production is in grain and livestock production. Large farms must survive on large volumes and low profits per item: to do this they must be efficient and able to get their products to competitive markets. The County can address the local issues of transportation, right-to-farm laws, and local tax benefits to support these operations.

Table 5
Baltimore County Agriculture
Maryland Agricultural Statistics
(2006)

Number of Farms	784
Average Farm Size	91 acres
Total Farmland	71,227 acres
Total Cropland	48,525 acres

Source: *Agriculture in Maryland Summary for 2007, MDA*

The horse industry is one of the largest economic agricultural industries in the County. Nationally, the thoroughbred horse industry is very strong, with sales and breeding fees up. These increases are typically linked to the quality of the track facilities, promotion, and wagering handles (purses). However, Maryland's thoroughbred industry is at a crossroads. The County should support state efforts to improve racing facilities and the overall health of the industry.

The County has significant nursery and greenhouse production. Several of its growers are nationally recognized for the quality of their plant production. This industry is constantly changing in order to be successful. Laws, regulations and policies need to be constantly reviewed to promote the success of this industry while protecting the rural character of the surrounding communities.

The County, like the State, is seeing a strong interest in consumers who desire both local agricultural production and an experience relating to agricultural production. Operations such as wineries, pumpkin festivals, community supported agriculture, and direct market business operations are all part of the emerging agricultural economy. As with the nursery and greenhouse production, zoning laws, county regulations, and health department regulations need to be reviewed to remove unattainable burdens from these industries while still protecting public health and community character.

Actions:

1. The County Economic Development Office will continue to offer loans and economic support for sustainable agricultural operations.
2. Consult the Rural Baltimore County Agricultural Profitability Study and Action Plan" (2009), and implement appropriate actions such as mentoring programs for new farmers and agricultural tourism activities on farms.
3. Review County Zoning and Development regulations to provide for farm production and processing.
4. Finish construction of the Baltimore County Center for Maryland Agriculture, which will promote a sustainable agricultural industry by providing educational and recreational opportunities for the public, and encouraging "agro-tourism" The Center will also serve as an "incubator" for new ideas to help sustain agriculture in many aspects, including protective measures such as 'best management practices".
5. Facilitate discussions with the agricultural community and surrounding neighbors regarding the new agricultural economies (i.e. sell what you grow, farm markets) and potential impacts on quality of life.
6. Permit ancillary activities that allow farmers to sell products grown on the farm directly to customers, and promote certain farms as a destination stop for tourists and visitors.
7. Ensure that County regulations provide flexibility in agricultural operations and enable them to adapt to changing economic conditions.
8. Work with the Maryland Department of Agriculture (MDA), the University of Maryland Extension (UME), and the County Department of Economic Development to assist farm businesses in marketing to new local, national, and international consumers.
9. Support Farm Bureau educational activities such as the "Agriculture in the Classroom" program at Hereford Middle and High Schools, and a new mobile agricultural classroom.
10. Support the Farm Bureau program that identifies agricultural products produced in the County, which assists in the marketing of locally produced goods.
11. Establish a program to assist young farmers in accessing capital to purchase farmland.
12. Continue to foster and monitor the relationship between large-scale producers and landowners that lease land.
13. Investigate what other counties have done to solicit new agricultural operations.
14. Encourage sustainable farming practices.

Specific Policy: Manage Development to Limit Conflicts with the Agricultural Industry

While the County is a leader in the Country with its restrictive agricultural zoning and planning for agriculture, there are threats to its continued success. Despite the diligent efforts of successive County Councils and Administrations to maintain and expand the agricultural zoning, incremental development continues to threaten the protection of resources and the viability of the agricultural industry. This is the result of development of existing parcels, ability to subdivide parcels as small as two acres, the grandfathering of parcels subdivided between 1976 and 1979, and to some extent, those rezoned since 1979. The zoning and development controls need to be reviewed and strengthened to assure that the goals and objectives of the Master Plan and the Baltimore County Zoning Regulations are being achieved.

Actions

1. Continue to enforce local policies, ordinances, regulations and procedures that stabilize the agricultural and forest land base.
2. Review and, if necessary, revise zoning and development standards to promote conditions suitable for production, processing and sale of agricultural products.
3. Include prime and productive soil standards and a maximum lot size to ensure that large parcels are not split to create large residential lots.
4. Evaluate increasing the minimum acreage for subdivisions in the RC 2 zone to reduce environmental impacts and development pressure on agricultural resources.
5. Evaluate regulations to eliminate resubdivision of lots created between 1975 and 1979 in the RC 2 zone.
6. Require that placement of State agricultural or conservation easements shall not result in an increase in density over that permitted without the easements.
7. Monitor development within the APPA's to ensure that residential and non-agricultural uses protect the resources and do not overwhelm the operation of agricultural businesses.
8. In general, zoning changes made in the agricultural priority preservation areas should protect the County's agricultural industry.
9. Consider adding criteria to the Baltimore County Zoning Regulations (BCZR) to require the evaluation of proposed development impacts on agricultural uses located on prime and productive soils.
10. Assure that development will have limited impact on active agricultural operations by reviewing, and, if necessary, revising setback requirements.
11. Review uses permitted by right and special exception in the RC 2 zone to determine whether any uses that are inconsistent with the purpose of the zone should be removed and consider additional performance standards, which will mitigate the impact of the proposed uses on the adjacent farm or easement property.
12. Enact "Right to Farm" legislation and institute a nuisance mediation board for farm operations.
13. Consider whether certain institutional uses now permitted in the RC 2, RC 7 and RC 8 zones should be eliminated. Establish performance standards for institutions that are found to not have significant negative impacts if limited by the standards.

Specific Policy: Implement Best Management Practices

While most if not all Best Management Practices, or "BMPs", provide long-term benefit to maintaining the productive quality of the farmland, the short term costs and potential loss of

production areas can present disincentives to full implementation of BMPs. Farmers are assisted in their efforts to apply BMPs by the Baltimore County Soil Conservation District, the UME, the MDA, the U.S. Natural Resources Conservation Service, and the U.S. Farm Services Agency. Furthermore, many farmers and landowners do participate in stewardship programs that help protect local streams, the drinking water reservoirs, and the Chesapeake Bay. However, in order to make greater progress in protecting and restoring water quality, farmers and others who control most of the land will have to increase stewardship actions. It is the policy of the County that every farm, whether owned or leased, shall have and implement a Soil Conservation and Water Quality Plan, and where appropriate, an approved Nutrient Management Plan.

Actions

1. Require landowners who participate in County land preservation programs to have and to implement soil conservation and water quality plans that maintain the soil resources of the farm, and protect the water quality of the streams, reservoirs, and the Chesapeake Bay.
2. Work with the Soil Conservation District to evaluate staffing needs to assure capacity to ensure that every farm has a Soil Conservation and Water Quality Plan.
3. By 2011, investigate developing a system with the Baltimore County Soil Conservation District that monitors efforts to employ BMPs.
4. Continue to provide support to the farm agencies including the UME.
5. Provide research and new technologies to assist landowners with the implementation of BMPs.
6. Investigate setting minimum water quality standards for plans written for farms in county land preservation programs in conjunction with cost-share programs to offset the expenses to the landowner/farmer.
7. Investigate other innovative strategies, approaches and incentives to encourage landowners to protect resources and overcome disincentives.

RURAL LEGACY PROGRAM

In 1997, the Maryland General Assembly adopted the Rural Legacy Program to combat the continuing loss of natural resources and productive agricultural lands to development. Not only were significant resources being lost, but also what remained was fragmented by development, thus reducing its economic and environmental values. The Rural Legacy Program provides for local jurisdictions and private organizations such as Land Trusts to apply for designation of significant areas as "Rural Legacy Areas". The County and its Land Trusts have received designation and funding for these five Rural Legacy Areas:

- Coastal
- Piney Run
- Gunpowder
- Long Green
- Manor

(See Map RA-2)

GENERAL POLICIES

- Limit new residential growth in these areas.
- Protect and maintain the area's rural character.
- Permanently preserve land through easement programs.

Specific Policy: Manage growth within the designated Rural Legacy Areas and seek permanent preservation of undeveloped properties through easement programs.

Actions:

1. Work with local land trusts to monitor goals and accomplishments of Rural Legacy Areas to maintain the level of commitment by landowners.
2. Develop partnerships with local land trusts to integrate into proposals all aspects of the County's resource protection elements such as forest buffer, Chesapeake Bay shoreline, forest habitat, endangered species, and the County's planning, growth management and zoning elements that reduce sprawl.
3. Continue financial partnership with the State for preserving properties within Rural Legacy areas.
4. Encourage donation of conservation easements to supplement purchased easements.

2. Develop overlay districts or specific zoning classifications with design performance criteria unique to each of the centers so issues of use, size, scale and design are addressed. Each center has unique characteristics that should be enhanced by new development.
3. Adopt development performance guidelines and standards to ensure design quality, scale of uses, natural resource protection, buffers to agricultural uses, adequate open space close to homes, and pedestrian accessibility.
4. Provide infrastructure support such as stormwater management.
5. Provide adequate buffers and transitions between commercial projects and differing adjacent land uses to maintain rural character.

HISTORIC RESOURCES

Rural agricultural areas present unique opportunities for conserving historic resources. Historic structures in the countryside tend to derive part of their historic significance from their bucolic setting, which is frequently tied to its economic function. Typically, the historic resource is composed of the primary structure along with a cluster of functionally and visually related outbuildings, such as barns, springhouses, and stables, set in a pastoral landscape of fields, streams and woodlands.

Conscious of this interplay between historic resources and their setting, local communities have established four rural County Historic Districts - Monkton, Corbett, Glyndon and Franklinville and nine National Register Districts - Worthington Valley, My Lady's Manor, Caves Valley, Granite, Greenspring Valley, Long Green Valley, Western Run – Belfast Road, Corbett and Glyndon (note: Glyndon and Corbett are both County Historic Districts and National Register Districts). The County Historic Districts are compact rural villages, ranging in size from 17 acres (Franklinville) to 164 acres (Glyndon). They are governed by the County Code, which makes any exterior change within its bounds subject to Landmarks Preservation Commission (LPC) approval. National Register Districts, in contrast, tend to be large, ranging from 1,500 acres (Caves Valley) to nearly 10,000 acres (Western Run-Belfast). This designation entails no regulatory limitations on property owners – unless they apply for a tax credit, in which case the owner voluntarily subjects him/herself to LPC approval.

There are also individual rural properties that are on the Landmarks List. Being placed on this list affords a property the same protection as structures located within a County Historic District. Since October 2005, the LPC also delineates an "historic environmental setting" along with the structure(s). The setting protects the portion of the lot that is historically, architecturally and culturally connected to the historic significance of the landmarks structure.

GENERAL POLICY

- Protect historic resources along with their historic environmental setting so that residents can appreciate the rural landscape, while allowing the reasonable use of privately owned land.

Specific Policy: Coordinate historic preservation with the County's rural strategy

Rural areas, which have retained their historic character, such as Worthington Valley, My Lady's Manor, Green Spring Valley, and Long Green Valley, continue to be among the County's most

desirable places of residence. Historic structures tend to be more compatible in design, scale and massing with the rural landscape than modern housing. However, because maintaining a historic home can be expensive and many property owners equate bigger with better, sustaining the bucolic beauty of the rural landscape is challenging. Rural subdivisions, with their oversized dwellings, in a denuded, flatly graded landscape, can be visible for miles. Even a single inappropriately designed or poorly sited new dwelling can dramatically alter the rural character.

Historic preservation goals coincide with the agricultural preservation strategy and environmental protection objectives of the Master Plan in several ways. Historic properties tend to be smaller and thus create less impervious surface. Preservationists support the retention of a property's traditional agricultural use, thereby preserving scenic resources. Finally, saving and restoring structures, instead of replacing them with new structures, is in itself an act of sustainability that preserves historic resources.

Actions

1. Work with owners of historic resources desiring to place their property on the Landmarks List – particularly properties which are important to the agricultural history of Baltimore County and which are located along scenic routes.
2. Initiate a study to determine if designated "view sheds" of historic resources can be preserved, either by limiting new development within view of the historic resource, or by buffering new development from the view of such resource.
3. Develop scenic route designations in coordination with rural historic preservation goals.
4. Continue to evaluate proposed development for impacts on historic resources.

SCENIC RESOURCES

The County's scenic resources consist of scenic corridors, scenic views, and gateways. Most of the scenic corridors and views are located in rural areas. Gateways can occur within either urban or rural areas, and, in fact, frequently occur at the boundary between urban and rural areas (See Map RA-3).

GENERAL POLICY

- Preserve and enhance the significant scenic resources designated on the scenic resources map, including scenic corridors, views and gateways, as essential components contributing to the quality of life.

Specific Policy: Preserve Scenic Corridors and Views

The scenic views depicted on the map below do not represent a comprehensive inventory, but rather a beginning of a list that can be built upon. Following the adoption of the 1989 master plan, the County produced a series of scenic route maps for each Councilmanic district that combined the significant visual and historical elements into self-guided scenic tours. In 1991, a set of development guidelines was adopted to begin the process of protecting scenic resources. These guidelines have helped to raise awareness and have recommended development alternatives that are sensitive to scenic issues.

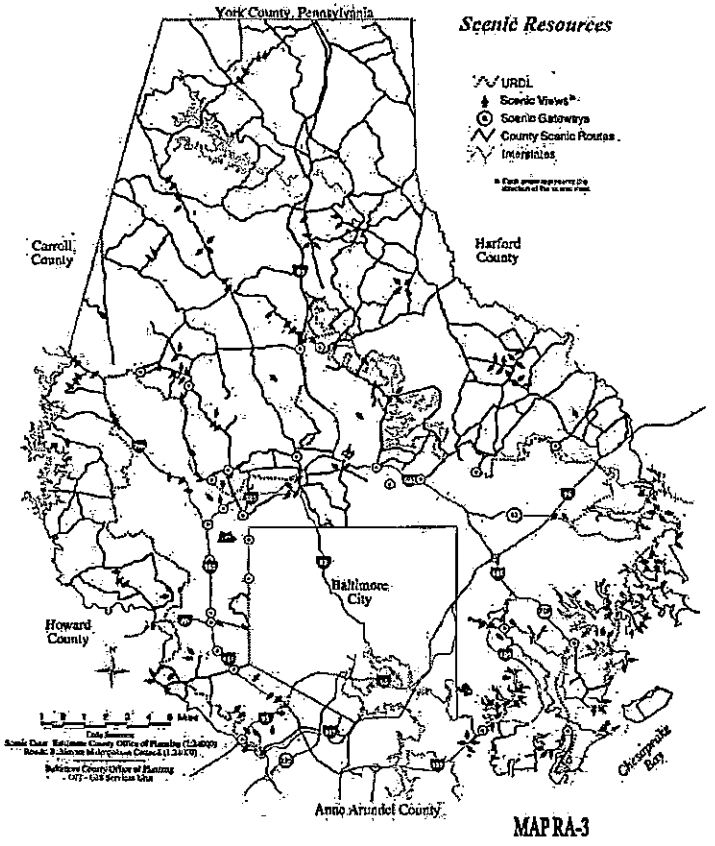
One area that the County has concentrated its efforts on preserving scenic quality is the Interstate 83 (I-83) corridor. The goal is to protect the scenic view shed of I-83 as it extends through the northern portion of Baltimore County from the Thornton Mill overpass to the Pennsylvania line. This portion of I-83 runs through one of the most scenic portions of Baltimore County's piedmont area. Farms, forests, streams and rural homesteads line both sides of I-83. Many properties adjacent to I-83 have been protected either as parkland or through various easement programs. The programs include donations and purchase of development rights. There has been significant progress in the effort: between Belfast Road and the Gunpowder River, more than half of the scenic corridor has been protected.

This endeavor should persist with the emphasis on lands zoned for resource protection such as RC 2, RC 4 and RC 7. The County must maintain coordination with the State Highway Administration and continue to seek State and Federal funds as they become available.

Actions

1. Coordinate scenic resource management practices with the Maryland State Scenic Byways Program, and the National Program.
2. Continue to preserve properties within the I-83 view shed through easement purchases and RC4 clustering.
3. Evaluate proposed improvements to state and county roads and bridges for their impact on scenic resources in conformance with the adopted *Rural Roads Standards*. Where public safety allows, the narrow and/or winding character of roads is part of the scenic experience and should be preserved.
4. Continue to evaluate proposed development for impacts on scenic resources.

DRAFT
January 21 2010



MAP RA-3

People's Counsel
CBA Exhibit
15 B

COUNTY COUNCIL

Print

Resolutions - 2010 Session

The following links are PDF files and require Adobe Acrobat Reader to view them.

Archived Legislation
Legislation Main

COUNCIL DISTRICTS
District 1
District 2
District 3
District 4
District 5
District 6
District 7

Find *Your* District



Auditor's Office
Board of Appeals

Resolution 1-10 PTE - DAV - Bryant Robinson

Resolution 2-10 PTE - DAV - Michael R. Nelson

Resolution 3-10 Public Disclosure - Michael James

Resolution 4-10 Review of PUD - Ballard Family Property - Lakeside Boulevard

Resolution 5-10 Employment of Aliens

Resolution 6-10 Aging Schools Program

Resolution 7-10 PTE - DAV - William H. Volkert

Resolution 8-10 Accept various vaccine doses for Health and Fire Department Healthcare Personnel

Resolution 9-10 PTE - DAV - Allen J. Sawyer

Resolution 10-10 PTE - DAV - Gary E. Chipley

Resolution 11-10 PTE - DAV - Frederick W. Leigh

Resolution 12-10 PTE - DAV - Craig B. Spicer

Resolution 13-10 Planning Board - Community Plan for the North Point Peninsula area

Resolution 15-10 Task Force on Road Salt

Resolution 16-10 Public Disclosure - Daniel John Kile

Resolution 17-10 Public Disclosure - James C. Arrick

Resolution 18-10 Sanitary Sewer Extension - Hilltop Drive - Carney Area

Resolution 19-10 Sanitary Sewer Extension - Maple Avenue - Ruxton Area

Resolution 20-10 Adoption of Master Plan Amendment: Rural Areas

Resolution 21-10 Adoption of Lower Back River Neck Community Action Plan

Resolution 22-10 Carney-Cub Hill-Parkville Area Community Plan

Resolution 23-10 Adoption of Greater Hillendale Community Plan

Resolution 24-10 BCPS - Authorization for Expenditure of Non-Local Funds (American Recovery and Reinvestment Act)

Resolution 26-10 Accept Donation - Towson University Video Class for Recycling Campaign

Resolution 27-10 PTE - DAV - Frank J. Melton

Resolution 28-10 PTE - Blind - James A. Caraway

Resolution 29-10 Public Disclosure - Lauri R. Bost

Resolution 30-10 Master Plan 2010 Amendment - Turner Station Community Charrette Plan

Resolution 31-10 PTE - Surviving Spouse of DAV - Carol Casciero

Resolution 32-10 Adoption of Rosewood Institutional Educational Center Plan

Resolution 33-10 Amendment to PUD Review - Nottingham Ridge

Resolution 34-10 May 2010 Melanoma/Skin Cancer Awareness & Prevention Month

Resolution 35-10 Priority List for Rural Legacy Applications

Resolution 36-10 Accept gift from Emergency Number Systems Board - 911 System

Resolution 37-10 Non-Local Funding - CCBC

Resolution 38-10 Review of PUD - Consolidated Equities Corporation

Resolution 39-10 Property Tax Credit - Rosewald Beach Civic League

Resolution 40-10 Property Tax Exemption - Blind - Virgina R. Orner

Resolution 41-10 Property Tax Exemption - DAV - Arithony S. Bettick

Resolution 42-10 Property Tax Exemption - DAV - Michael L. Rogers

Resolution 43-10 Property Tax Exemption - DAV - Richard E. Keenan

Resolution 44-10 Public Disclosure - Michael Field

Resolution 45-10 Primary Law Enforcement Unit for Receipt of Junk/Scrap Metal Reports

Resolution 46-10 Balto. Co. Public Library - Expenditure of Non-Local Funds

Resolution 47-10 Planning Board - Agriculture

Resolution 48-10 Healthcare Workers

Resolution 49-10 Regional Management Authority

Resolution 50-10 Alternate Review of PUD - Villages of Bear Creek - Lynch Cove, LLC

Resolution 51-10 Revenue Bonds - Loyola High School

Resolution 52-10 Recovery Zone Facility Bonds - Hampton Inn - Owings Mills

Resolution 53-10 Accept gift from U.S. Military Surplus for Police Dept. - Marine Unit

Resolution 54-10 PTE - Leo S. Szymanski

Resolution 55-10 Public Disclosure - Kathleen Young

Resolution 56-10 MTA Application - SSTAP & RPTP

Resolution 57-10 Support of Loan - Towson City Center, LLC - Investment Building Redevelopment

Resolution 58-10 Revenue Bond - Maryvale Preparatory School, LLC

Resolution 59-10 Recovery Zone Facility Bond - Investment Building Redevelopment

Resolution 60-10 Approval of Homeless Services Grant for Alliance, Inc.

Resolution 61-10 Sanitary Sewer Extension - Marriotsville Road

https://www.baltimorecountymd.gov/countycouncil/legislation/archived/2010/10resolution... 7/24/2018

§ 32-4-415. - SLOPE PROTECTION AND SOILS.

(a) *Development Plan or plat approval; slope protection required.* The county may not approve a Development Plan or plat unless the county finds that the proposed development:

(1) Includes protective measures adequate to prevent erosion or sloughing of any steep slope or unstable slope; and

(2) Promotes the preservation of the natural topographic features of the steep slope or unstable slope.

(b) *Same; soil limitation.* The county may not approve a Development Plan or plat on soils that present a severe or moderate limitation to development unless the county finds that adequate measures have been taken to mitigate the effects of the limitation.

(c) *Same; prime and productive soils.* On prime and productive soils within the RC-2 zone, the county may not approve a Development Plan or plat unless the county finds that construction, excavations, buildings, structures, pavements, grading, clearing, or other disturbances of the soils will be limited or restricted in accordance with policies established by the Department of Environmental Protection and Sustainability to promote agricultural uses and protect the county's soil resources.

(1988 Code, § 26-277) (Bill No. 18, 1990, § 2, 3-30-1990; Bill No. 113, 1992, § 5, 7-1-1992; Bill No. 79-01, § 2, 7-1-2004; Bill No. 122-10, § 12, 1-16-2011)

People's Counsel
CBA Exhibit
16

USDA NRCS Natural Resources Conservation Service

28577 Mary's Court, Suite 3
Easton, Md 21601

Sept. 25, 2018

Peter Max Zimmerman
People's Counsel for Baltimore County
Jefferson Building
105 West Chesapeake Ave. Room 204
Towson, Maryland 21204

Re: 632 Freeland Road Farm property
USDA Soils Configuration, USDA Soils Delineation
Baltimore County Board of Appeals Zoning Case No. 18-194-X

Dear Mr. Zimmerman,

Enclosed is the USDA-NRCS Official Soils map and report (containing soils information and several interpretation tables) of the farm property located at 632 Freeland Road Freeland, Maryland. This Soils Report was generated at the web site known as the USDA- NRCS Web Soil Survey (https://websoilsurvey.nrcs.usda.gov/app/). **As stated at the bottom of page 2, this is the site for official soil survey information.**

In your letter dated July 30, 2018, you asked me to provide you with my observations on several statements as related to the soils and soil survey for 632 Freeland Road.

1) NRCS assists in the implementation of the USDA Farmland Protection Policy Act of 1981. As stated in Part 523.2B of the Farmland Protection Policy Act Manual:

B. General Role

Under FPPA, NRCS will provide technical assistance to Federal agencies, State and local governments, Tribes, and nonprofit organizations that receive Federal funds or technical assistance. Examples of technical assistance include the following:

(i) Responding to requests for technical assistance in developing programs or policies that limit the conversion of productive farmland to nonagricultural uses
(ii) Advising agencies when a change in law, regulation, administrative rule, or other type of policy may affect the agency's compliance with FPPA
(iii) Providing site assessment criteria to governmental agencies and nonprofit organizations;
(iv) Developing important farmland maps
(v) Providing technical assistance during alternative site considerations, upon request by another Federal agency

The Farmland Protection Policy Act (FPPA) applies only to Federal assistance and actions that would convert important farmland to nonagricultural uses. It does not authorize the Federal Government in any way to regulate the use of private or non-Federal land or in any way affect the private property rights of owners of private land.

People's Counsel
CBA Exhibit
17

Provisions of FPPA apply to USDA programs that provide financial assistance as well as to programs that provide technical assistance.

Lands Subject to Provisions of FPPA are Important farmlands, including lands identified with soils that are prime, unique, or statewide or locally important farmland, are subject to the provisions of the Farmland Protection Policy Act.

NRCS also provides technical soils assistance to several Maryland State land preservation programs along with assistance to the Farm and Ranch Lands Protection Program (FRPP).

2) I have a Bachelor's Degree from the University of Maryland in Soil Science. I have worked with the USDA Soil Conservation Service, now known as the Natural Resources Conservation Service for over 40 years. My role as a Resource Soil Scientist is to provide guidance to internal and external customers on the interpretation and application of soil survey information related to specific soil, water, air, plant, and animal resource concerns. And providing direction and guidance for natural resource management, farm bill compliance, conducting information and education activities related to soils. I work closely with producers and landowners to provide technical expertise for USDA conservation programs.

3) I confirm that your People's Counsel Exhibit 9 My Neighborhood soils map is accurate and consistent with the USDA official soil survey found in the enclosed document.

4) I confirm that People's Counsel Exhibit 10 reflects the regular USDA accurate definitions and descriptions of the soils found at 632 Freeland Road.

5) The Glenelg soils found on site, specifically in the northern half the of site are considered Prime Farmland soils (GdA, GdB) and statewide importance soils (GdC, GeC). The Glenville soils are also classified as Prime Farmland soils (GhB). As stated in the report document (page 33) these soils are best suited to food, feed, fiber, forage, and oilseed crops. The Glenelg and Glenville soils have some of the highest ratings for crop productivity on the site (page 50).

If you have any questions about this letter or document, you may contact me at 443-746-4319.

Sincerely,

James E Brewer

James E. Brewer, CPSS/SC
NRCS Resource Soil Scientist
Easton, Maryland

USDA NRCS Natural Resources Conservation Service

28577 Mary's Court, Suite 3
Easton, Md 21601

Sept. 25, 2018

Peter Max Zimmerman
People's Counsel for Baltimore County
Jefferson Building
105 West Chesapeake Ave. Room 204
Towson, Maryland 21204

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Sincerely,

James E Brewer

James E. Brewer, CPSS/SC
NRCS Resource Soil Scientist
Easton, Maryland

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Baltimore County, Maryland, and York County, Pennsylvania

632 Freeland Road Farm



September 25, 2018

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Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Accessed [month/day/year].

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Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

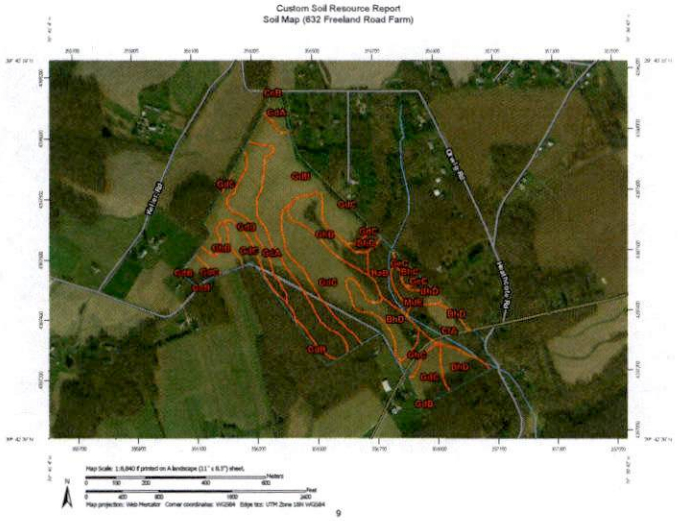
While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (632 Freeland Road Farm)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	2.1	2.1%
Subtotals for Soil Survey Area		97.0	99.9%
Totals for Area of Interest		97.1	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0.1	0.1%
Subtotals for Soil Survey Area		0.1	0.1%
Totals for Area of Interest		97.1	100.0%

Map Unit Descriptions (632 Freeland Road Farm)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic

class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Baltimore County, Maryland

BaB—Baile silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: pnp5
Elevation: 250 to 980 feet
Mean annual precipitation: 35 to 60 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 120 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition
Baile and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baile

Setting
Landform: Swales, drainageways, hillslopes, depressions
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear, concave

Typical profile
A - 0 to 9 inches: silt loam
Btg - 9 to 32 inches: silty clay loam
Cg - 32 to 65 inches: loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: High (about 10.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Glenville
Percent of map unit: 15 percent
Landform: Swales, drainageways
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Linear

Hydric soil rating: No

BhC—Brinklow channery loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2v7gg
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 65 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Brinklow and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist

Typical profile
Ap - 0 to 10 inches: channery loam
Bt - 10 to 19 inches: channery silt loam
BC - 19 to 25 inches: channery loam
Cr - 25 to 35 inches: weathered bedrock
R - 35 to 45 inches: bedrock

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 36 inches to paralithic bedrock; 28 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 15 percent
Landform: Hillslopes, interfluves
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Linear
Across-slope shape: Concave, convex, linear
Hydric soil rating: No

BhD—Brinklow channery loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 2v7gf
Elevation: 250 to 1,000 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition
Brinklow and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist

Typical profile
Ap - 0 to 10 inches: channery loam
Bt - 10 to 18 inches: channery silt loam
BC - 19 to 25 inches: channery loam
Cr - 25 to 35 inches: bedrock
R - 35 to 45 inches: bedrock

Properties and qualities
Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 36 inches to paralithic bedrock; 28 to 40 inches to lithic bedrock
Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Blocktown
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

CfA—Codorus silt loams, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 2lp69
Elevation: 200 to 600 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Codorus and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from phyllite, schist, diabase and/or greenstone

Typical profile
Ap - 0 to 11 inches: silt loam
Bw1 - 11 to 18 inches: silt loam
Bw2 - 18 to 40 inches: gravelly silt loam
2C - 40 to 60 inches: stratified sand to very gravelly loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: High (about 9.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hatboro
Percent of map unit: 15 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

GdA—Glenelg loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 2w062
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days

Farmland classification: All areas are prime farmland

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: very channery fine sandy loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Glenville
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Head slope, interfluve, base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: No

GdB—Glenelg loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2v7gp
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 160 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Gaila
Percent of map unit: 10 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Glenville
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

GdC—Glenelg loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2v7gq
Elevation: 30 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 46 to 57 degrees F
Frost-free period: 160 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenelg and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear, concave, convex
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 11.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow
Percent of map unit: 10 percent
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

GeC—Glenelg channery loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2lp6x
Elevation: 250 to 1,050 feet
Mean annual precipitation: 37 to 55 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 255 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy residuum weathered from phyllite

Typical profile
Ap - 0 to 10 inches: channery loam
Bt1,Bt2,BCt1 - 10 to 30 inches: clay loam
BCt2, CBt - 30 to 54 inches: loam
C - 54 to 76 inches: very channery sandy loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Gaila
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Manor
Percent of map unit: 5 percent
Landform: Interfluves, hillslopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

GhB—Glenville silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2tmch
Elevation: 20 to 1,090 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Glenville and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville

Setting
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Head slope, base slope, interfluve
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Parent material: Colluvium derived from metamorphic rock over schist, gneiss or phyllite residuum

Typical profile
Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 20 inches: channery silt loam
Bt2 - 20 to 30 inches: silt loam

Btx - 30 to 40 inches: silt loam
C1 - 40 to 59 inches: loam
C2 - 59 to 82 inches: loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: 29 to 31 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.03 to 0.11 in/hr)
Depth to water table: About 18 to 22 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Unnamed
Percent of map unit: 15 percent
Landform: Drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Ballo
Percent of map unit: 10 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: Yes

GhC—Glenville silt loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2p8wp
Elevation: 250 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 110 to 235 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville

Setting
Landform: Swales, drainageways
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy colluvium derived from phyllite and/or loamy colluvium derived from schist

Typical profile
Ap - 0 to 8 inches: silt loam
Bt1, Bt2 - 8 to 30 inches: silt loam
Btx - 30 to 40 inches: loam
C1, C2 - 40 to 70 inches: loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: 24 to 39 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 15 percent
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

MdE—Manor-Brinklow complex, 25 to 45 percent slopes, very rocky

Map Unit Setting
National map unit symbol: 2lpfp
Elevation: 250 to 4,000 feet
Mean annual precipitation: 8 to 46 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Manor and similar soils: 55 percent
Brinklow and similar soils: 30 percent
Rock outcrop: 6 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manor

Setting
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy residuum derived from phyllite and/or loamy residuum derived from schist

Typical profile
A1, A2 - 0 to 6 inches: loam
Bw1, Bw2 - 6 to 22 inches: sandy loam
C1,C2,C3,C4 - 22 to 72 inches: channery loamy sand

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Brinkiow

Setting
Landform: Hillslopes, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, free face
Parent material: Gravelly residuum weathered from schist and/or gravelly residuum weathered from phyllite

Typical profile
Ap - 0 to 10 inches: channery loam
Bt,BC - 10 to 25 inches: channery loam
Cr - 25 to 35 inches: weathered bedrock
R - 35 to 80 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 20 to 33 inches to paralithic bedrock; 33 to 80 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rock Outcrop

Typical profile
H1 - 0 to 60 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Blocktown
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, interfluve, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

York County, Pennsylvania

CeB—Chester silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2tt7y
Elevation: 10 to 1,170 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Chester and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chester

Setting
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Residuum weathered from mica schist

Typical profile
Ap - 0 to 10 inches: silt loam
BE - 10 to 17 inches: silt loam
Bt1 - 17 to 22 inches: clay loam
Bt2 - 22 to 30 inches: clay loam
Bt3 - 30 to 38 inches: clay loam
Bt4 - 38 to 56 inches: loam
C - 56 to 92 inches: fine sandy loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.9 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Glenville
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Head slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Gladstone
Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Mt. Airy
Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

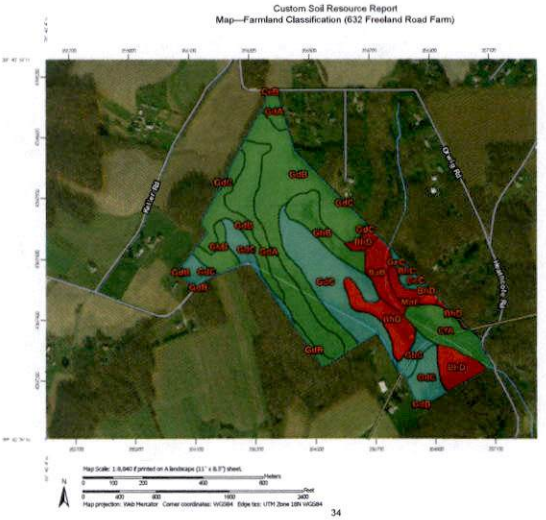
The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification (632 Freeland Road Farm)

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.


GuB
GuA2
GuB
GuC
GuB
GuA2
GuA
GuB
GuC
GuA
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GuC
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GuB

MAP INFORMATION

Imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Farmland Classification (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Balla silt loam, 3 to 8 percent slopes	Not prime farmland	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	All areas are prime farmland	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	2.1	2.1%
Subtotals for Soil Survey Area			97.0	99.9%
Totals for Area of Interest			97.1	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CaB	Chester silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.1	0.1%
Subtotals for Soil Survey Area			0.1	0.1%
Totals for Area of Interest			97.1	100.0%

Rating Options—Farmland Classification (632 Freeland Road Farm)

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Hydric Rating by Map Unit (632 Freeland Road Farm)

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

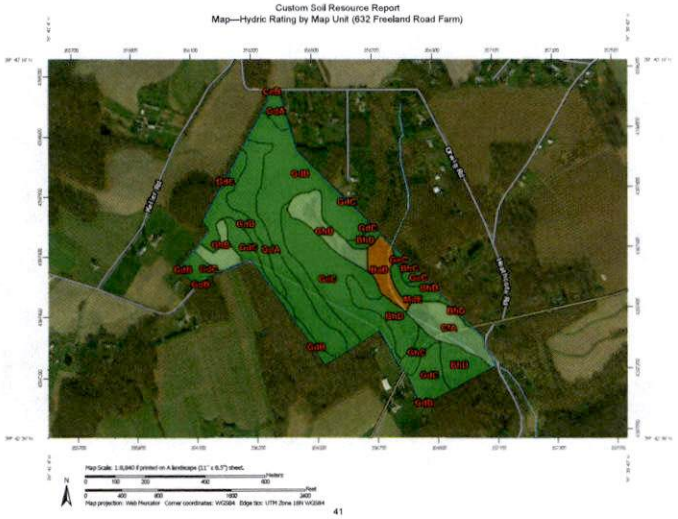
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service, U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Map—Hydric Rating by Map Unit (632 Freeland Road Farm)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Rating Polygons
  - Hydric (100%)
  - Hydric (66 to 99%)
  - Hydric (33 to 65%)
  - Hydric (1 to 32%)
  - Not Hydric (0%)
  - Not rated or not available
- Soil Rating Lines
  - Hydric (100%)
  - Hydric (66 to 99%)
  - Hydric (33 to 65%)
  - Hydric (1 to 32%)
  - Not Hydric (0%)
  - Not rated or not available
- Soil Rating Points
  - Hydric (100%)
  - Hydric (66 to 99%)
  - Hydric (33 to 65%)
  - Hydric (1 to 32%)
  - Not Hydric (0%)
  - Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydric Rating by Map Unit (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	85	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	0	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	0	10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	15	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	0	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	0	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	0	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	0	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	10	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	0	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	0	2.1	2.1%
Subtotals for Soil Survey Area			**97.0**	**99.9%**
Totals for Area of Interest			**97.1**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0	0.1	0.1%
Subtotals for Soil Survey Area			**0.1**	**0.1%**
Totals for Area of Interest			**97.1**	**100.0%**

Rating Options—Hydric Rating by Map Unit (632 Freeland Road Farm)

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

National Commodity Crop Productivity Index (632 Freeland Road Farm)

National Commodity Crop Productivity Index is a method of arraying the soils of the United States for non-irrigated commodity crop production based on their inherent soil properties. This version features a separate index for soybeans. In the past, soybeans and corn were considered together. The rating a soil is assigned is the highest one of four basic crop group indices, which are based on the climate where the crop is typically grown. Cooler climates are represented by winter wheat, moderate climates are represented by corn and soybeans, and warmer climates are represented by cotton. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050734.pdf)

The interpretation is applicable to both heavily populated and sparsely populated areas. Ratings are for soils in their present condition. The present land use is not considered in the ratings.

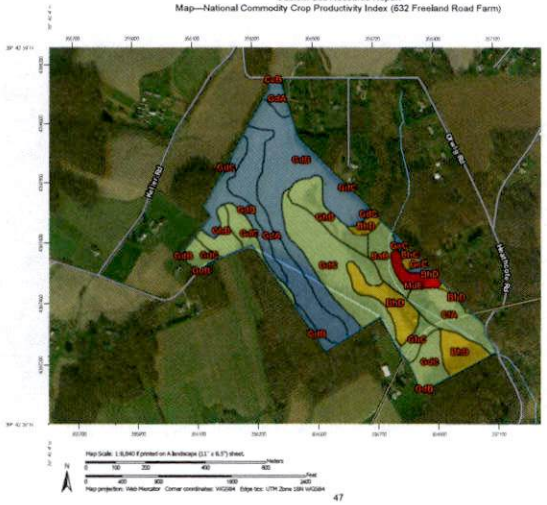
Ratings are based on properties and qualities to the depth normally observed during soil mapping (approximately 6 feet). Soil, site, and climate properties that influence the growth of crops are major considerations. Soil productivity is influenced by many soil properties. An ideal soil will store adequate amounts of water to nurture the crop between rains. This soil will have a near-neutral pH, will store nutrients, and lack toxic materials. The soil will have no barriers, either physical or chemical, to root growth. Water and gas transmission through the soil will be sufficient to maintain both water and oxygen at sufficient levels in the root zone. The soil will not be saturated with water during the growing season to the point that root growth is inhibited. The soil will not be subject to excessive flooding or ponding during the growing season. Slope is an important consideration because it affects erosion by water, runoff, and the operation of equipment. The climate must provide adequate water and heat to allow the desired crop to mature. A soil that differs from the ideal in any of these features will have lower inherent productivity for a particular crop. The further a soil differs from ideality in any one or all of the factors that determine inherent productivity, the lower its inherent productivity will be.

The ratings are both verbal and numerical. Rating class terms indicate the estimated productivity which is determined by all of the soil, site, and climatic features that affect crop productivity. "High inherent productivity" indicates that the soil, site, and climate have features that are very favorable for crop production. High yields and low risk of crop failure can be expected if a high level of management is employed. "Moderately high inherent productivity" indicates that the soil has features that are generally quite favorable for crop production. Good yields and moderately low risk of crop failure can be expected. "Moderate inherent productivity" indicates that the soil has features that are generally favorable for crop production. Good yields and moderate risk of crop failure can be expected. "Moderately low inherent productivity" indicates that the soil has features that are generally not favorable for crop production. Low yields and moderately high risk of crop failure can be expected. "Low inherent productivity" indicates that the soil has one or more features that are unfavorable for crop production. Low yields and high risk of crop failure can be expected.

Numerical ratings indicate the overall productivity of the soil. The ratings are shown in decimal fractions ranging from 1.00 to 0.01. They indicate gradations between the point at which the combination of soil, site, and climate features has the greatest positive impact on inherent productivity (1.00) and the point at which the soil features are very unfavorable (0.01).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Rating Polygons
  - Low inherent productivity
  - Moderately low inherent productivity
  - Moderate inherent productivity
  - Moderately high inherent productivity
  - High inherent productivity
  - Not rated or not available
- Soil Rating Lines
  - Low inherent productivity
  - Moderately low inherent productivity
  - Moderate inherent productivity
  - Moderately high inherent productivity
  - High inherent productivity
  - Not rated or not available
- Soil Rating Points
  - Low inherent productivity
  - Moderately low inherent productivity
  - Moderate inherent productivity
  - Moderately high inherent productivity
  - High inherent productivity
  - Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMA

The soil surveys that comprise your AOI ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each mag measurements.

Source of Map: Natural Resources Con
Web Soil Survey URL:
Coordinate System: Web Mercator (EP

Maps from the Web Soil Survey are base projection, which preserves direction and distance and area. A projection that pres Albers equal-area conic projection, shoul accurate calculations of distance or area

This product is generated from the USDA of the version date(s) listed below.

Soil Survey Area: Baltimore County, Ma
Survey Area Data: Version 12, Sep 18,

Soil Survey Area: York County, Pennsyl
Survey Area Data: Version 11, Oct 4, 2

Your area of interest (AOI) includes more area. These survey areas may have beer scales, with a different land use in mind, different levels of detail. This may result i properties, and interpretations that do not across soil survey area boundaries.

Soil map units are labeled (as space allo 1:50,000 or larger.

Date(s) aerial images were photographed 22, 2017

The orthophoto or other base map on wh compiled and digitized probably differs fr

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—National Commodity Crop Productivity Index (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Bath silt loam, 3 to 8 percent slopes	0.596			3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	0.392			0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	0.321			10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	0.583			6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	0.693			13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	0.693			27.0	27.5%
GdC	Glenelg loam, 8 to 15 percent slopes	0.538			22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	0.720			0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	0.555			8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	0.502			1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	0.101			2.1	2.1%
Subtotals for Soil Survey Area					97.0	99.9%
Totals for Area of Interest					97.1	100.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	0.599			0.1	0.1%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area					0.1	0.1%
Totals for Area of Interest					97.1	100.0%

Rating	Acres in AOI	Percent of AOI
0.693	27.0	27.5%
0.538	22.7	23.4%
0.583	13.4	13.9%
0.321	10.1	10.4%
0.555	8.0	8.2%
0.583	6.5	6.7%
0.596	3.8	4.0%
0.502	1.9	1.9%
0.101	2.1	2.1%
0.720	0.8	0.8%
0.392	0.7	0.8%
0.599	0.1	0.1%
Totals for Area of Interest	97.1	100.0%

Rating Options—National Commodity Crop Productivity Index (632 Freeland Road Farm)

Aggregation Method: Weighted Average

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

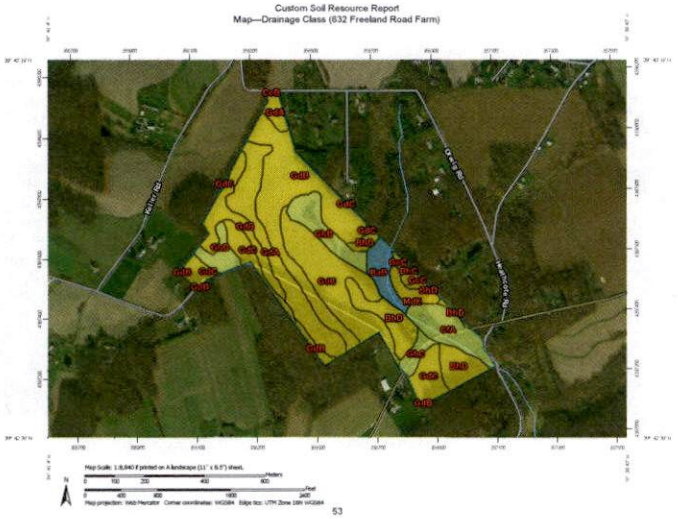
The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Drainage Class (632 Freeland Road Farm)

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Rating Polygons
  - Excessively drained
  - Somewhat excessively drained
  - Well drained
  - Moderately well drained
  - Somewhat poorly drained
  - Poorly drained
  - Very poorly drained
  - Subaqueous
  - Not rated or not available
- Soil Rating Lines
  - Excessively drained
  - Somewhat excessively drained
  - Well drained
  - Moderately well drained
  - Somewhat poorly drained
  - Poorly drained
  - Very poorly drained
  - Subaqueous
  - Not rated or not available
- Soil Rating Points
  - Excessively drained
  - Somewhat excessively drained
  - Well drained
  - Moderately well drained
  - Somewhat poorly drained
  - Poorly drained
  - Very poorly drained
  - Subaqueous
  - Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Drainage Class (632 Freeland Road Farm)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	Poorly drained	3.8	4.0%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Well drained	0.7	0.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Well drained	10.1	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	Moderately well drained	6.5	6.7%
GdA	Glenelg loam, 0 to 3 percent slopes	Well drained	13.4	13.9%
GdB	Glenelg loam, 3 to 8 percent slopes	Well drained	27.0	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Well drained	22.7	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Well drained	0.8	0.8%
GhB	Glenville silt loam, 3 to 8 percent slopes	Moderately well drained	8.0	8.2%
GhC	Glenville silt loam, 8 to 15 percent slopes	Moderately well drained	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Well drained	2.1	2.1%
Subtotals for Soil Survey Area			**97.0**	**99.9%**
Totals for Area of Interest			**97.1**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	Well drained	0.1	0.1%
Subtotals for Soil Survey Area			**0.1**	**0.1%**
Totals for Area of Interest			**97.1**	**100.0%**

Rating Options—Drainage Class (632 Freeland Road Farm)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Map Unit Description (Brief, Generated) (632 Freeland Road Farm)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated) (632 Freeland Road Farm)

Baltimore County, Maryland

Map Unit: BaB—Baile silt loam, 3 to 8 percent slopes

Component: Baile (85%)

The Baile, component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on depressions, drainageways, swales, piedmonts. The parent material consists of loamy colluvium derived from phyllite and/or loamy colluvium derived from schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Component: Glenville (15%)

Generated brief soil descriptions are created for major components. The Glenville soil is a minor component.

Map Unit: BhC—Brinklow channery loam, 8 to 15 percent slopes

Component: Brinklow (85%)

The Brinklow component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes on piedmonts. The parent material consists of gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 36 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Glenelg (15%)

Generated brief soil descriptions are created for major soil components. The Glenelg soil is a minor component.

Map Unit: BhD—Brinklow channery loam, 15 to 25 percent slopes

Component: Brinklow (80%)

The Brinklow component makes up 80 percent of the map unit. Slopes are 15 to 25 percent. This component is on hillslopes on piedmonts. The parent material consists of gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 36 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Blocktown (10%)

Generated brief soil descriptions are created for major soil components. The Blocktown soil is a minor component.

Component: Glenelg (10%)

Generated brief soil descriptions are created for major soil components. The Glenelg soil is a minor component.

Map Unit: CfA—Codorus silt loams, 0 to 3 percent slopes

Component: Codorus (85%)

The Codorus, component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on flood plains, river valleys. The parent material consists of loamy alluvium derived from phyllite, schist, diabase and/or greenstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Hatboro (15%)

Generated brief soil descriptions are created for major components. The Hatboro soil is a minor component.

Map Unit: GdA—Glenelg loam, 0 to 3 percent slopes

Component: Glenelg (85%)

The Glenelg component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on nearly level to steeply dissected hillslopes, upland piedmonts. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria.

Component: Brinklow (10%)

Generated brief soil descriptions are created for major soil components. The Brinklow soil is a minor component.

Component: Glenville (5%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Map Unit: GdB—Glenelg loam, 3 to 8 percent slopes

Component: Glenelg (85%)

The Glenelg component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on nearly level to steeply dissected hillslopes, upland piedmonts. The parent material consists of residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Galla (10%)

Generated brief soil descriptions are created for major soil components. The Galla soil is a minor component.

Component: Glenville (5%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Map Unit: GdC—Glenelg loam, 8 to 15 percent slopes

Component: Glenelg (80%)

The Glenelg component makes up 90 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes, piedmonts. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Brinklow (10%)

Generated brief soil descriptions are created for major soil components. The Brinklow soil is a minor component.

Map Unit: GeC—Glenelg channery loam, 8 to 15 percent slopes

Component: Glenelg (85%)

The Glenelg, component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes, piedmonts. The parent material consists of loamy residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Gaila (10%)

Generated brief soil descriptions are created for major components. The Gaila soil is a minor component.

Component: Manor (5%)

Generated brief soil descriptions are created for major components. The Manor soil is a minor component.

Map Unit: GhB—Glenville silt loam, 3 to 8 percent slopes

Component: Glenville (75%)

The Glenville component makes up 75 percent of the map unit. Slopes are 3 to 8 percent. This component is on drainageways, piedmonts. The parent material consists of colluvium over schist, gneiss or phyllite residuum. Depth to a root restrictive layer, fragipan, is 29 to 31 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal

zone of water saturation is at 20 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Unnamed (15%)

Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Baile (10%)

Generated brief soil descriptions are created for major soil components. The Baile soil is a minor component.

Map Unit: GhC—Glenville silt loam, 8 to 15 percent slopes

Component: Glenville (85%)

The Glenville, component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on drainageways, swales, piedmonts. The parent material consists of loamy colluvium derived from phyllite and/or loamy colluvium derived from schist. Depth to a root restrictive layer, fragipan, is 24 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Glenelg (15%)

Generated brief soil descriptions are created for major components. The Glenelg soil is a minor component.

Map Unit: MdE—Manor-Brinklow complex, 25 to 45 percent slopes, very rocky

Component: Manor (55%)

The Manor, component makes up 55 percent of the map unit. Slopes are 25 to 45 percent. This component is on hillslopes, piedmonts. The parent material consists of loamy residuum derived from phyllite and/or loamy residuum derived from schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Brinklow (30%)

The Brinklow component makes up 30 percent of the map unit. Slopes are 25 to 45 percent. This component is on hillslopes, piedmonts, hillslopes. The parent material consists of gravelly residuum weathered from schist and/or gravelly residuum weathered from phyllite. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 33 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Blocktown (10%)

Generated brief soil descriptions are created for major components. The Blocktown soil is a minor component.

Component: Rock outcrop (5%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.

York County, Pennsylvania

Map Unit: CeB—Chester silt loam, 3 to 8 percent slopes

Component: Chester (80%)

The Chester component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on hillslopes, upland piedmonts. The parent material consists of residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Glenville (10%)

Generated brief soil descriptions are created for major soil components. The Glenville soil is a minor component.

Component: Gladstone (5%)

Generated brief soil descriptions are created for major soil components. The Gladstone soil is a minor component.

Component: Mt. Airy (5%)

Generated brief soil descriptions are created for major soil components. The Mt. Airy soil is a minor component.

References

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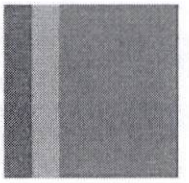

September 7, 2018

Peter Max Zimmerman
Office of Peoples Counsel
105 West Chesapeake Ave.
Towson, MD 21204

RE: 632 Freeland Road Farm property
Board of Appeals Case No. 18-194-X

Dear Peter Max Zimmerman,

In response to your request for me to review the information that you sent with regard to the above referenced case I offer my personal and professional comments on this request with regards to the issue of the use of USDA Soil Survey maps and their identification of various soils for this property.

1. As a former Senior Planner in the Office of Planning and one who was part of a team that prepared and drafted the maps and regulations for the Resource Conservation Zones which were adopted in 1976 (Bill 98-1975) I can attest to the fact the USDA soils maps were a critical part of the formation of the RC2 Agricultural Zone.

2. While Baltimore County is a large county it has a finite amount of prime and productive soils that must be protected in order to maintain a viable agricultural industry. When these prime and productive soils are taken out of production for extended periods of time it has a negative effect on the industry as a whole.

3. In Section 1A01.1 A.1a the Legislative findings of the RC 2 Zone, the initial statement is "That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;". Sub-section B. Purposes. "The RC2 zoning classification is established pursuant to the legislative findings above in order to

People's Counsel
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foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban use."

4. Agricultural Priority Preservation Areas. The Baltimore County, Maryland Master Plan 2010 states "APPA's are based on their capability for agricultural production and the existence of agricultural operations and preserved lands".

5. The Maryland Agricultural Land Preservation Program basses its ranking of a farm that has been submitted for easement purchase on the amount of prime and productive soils as a part of its review. The USDA Soil Maps are used to ascertain that information.

The United states Department of Agriculture , (USDA) , Natural Resources Conservation Service has uploaded the Soil Survey for each county throughout the US to their website https://websoilsurvey.ncrs.usda.gov/app/HomePage.htm in order to provide a more convenient access to anyone won needs information on soils for any particular property in the US. I have reviewed the soil map for this property and downloaded some additional information for this properties farmland classification and verified that the information contained in People's Counsel Exhibit's 9 and 10 are accurate. (see attached) This particular farm consists of predominantly prime and productive soils. Also, this farm is within the adopted Agricultural Priority Preservation Area of Baltimore County.

In summery the use of USDA soils maps weather on line or the Soils book are the "gold standard" in determining the quality of soil in any part of the county. It is used in any part of land planning and engineering when information is needed as to the benefits and limitations of land is needed. With regard to the request at hand it is obvious that the proposed location of the solar panels would cover a substantial portion of prime and productive soils and in my opinion is in direct contrast to the foundation of the purpose and intent of the RC 2 zone and the Master Plan for Baltimore County.

Thank you for the opportunity to provide this input.

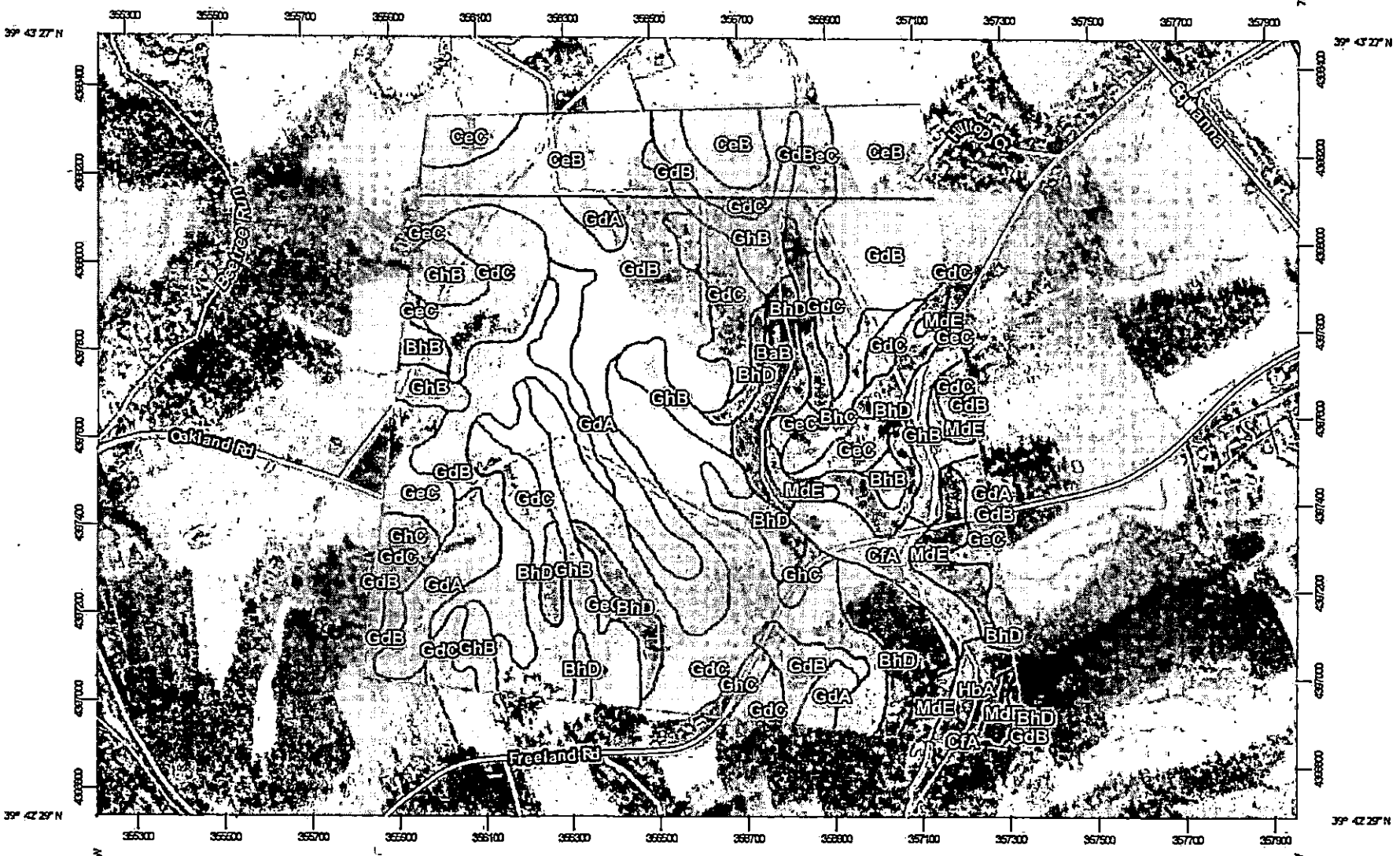
Sincerely,

Jack Dillon

Jack Dillon



Farmland Classification—Baltimore County, Maryland, and York County, Pennsylvania



Map Scale: 1:12,600 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Balle silt loam, 3 to 8 percent slopes	Not prime farmland	10.8	2.4%
BhB	Brinklow channery loam, 3 to 8 percent slopes	All areas are prime farmland	4.3	0.9%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	5.8	1.3%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	47.3	10.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	All areas are prime farmland	11.0	2.4%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	29.1	6.4%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	90.0	19.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	106.6	23.4%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	21.5	4.7%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	42.5	9.3%
GhC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	7.1	1.6%
HbA	Hatboro silt loams, 0 to 3 percent slopes	Not prime farmland	5.9	1.3%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	16.6	3.7%
Subtotals for Soil Survey Area			**398.4**	**87.6%**
Totals for Area of Interest			**454.9**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CeB	Chester silt loam, 3 to 8 percent slopes	All areas are prime farmland	38.1	8.4%
CeC	Chester silt loam, 8 to 15 percent slopes	Farmland of statewide importance	15.4	3.4%
GdB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	3.0	0.7%
Subtotals for Soil Survey Area			**56.5**	**12.4%**
Totals for Area of Interest			**454.9**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Sparks Glencoe Community Planning Council Boundaries

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STREET ATLAS

Baltimore City & County

Maryland

4 **Regional Maps**
User's Guide

9 **City of Baltimore**
Large-Scale Maps

12 **Baltimore City & County**
Street Maps

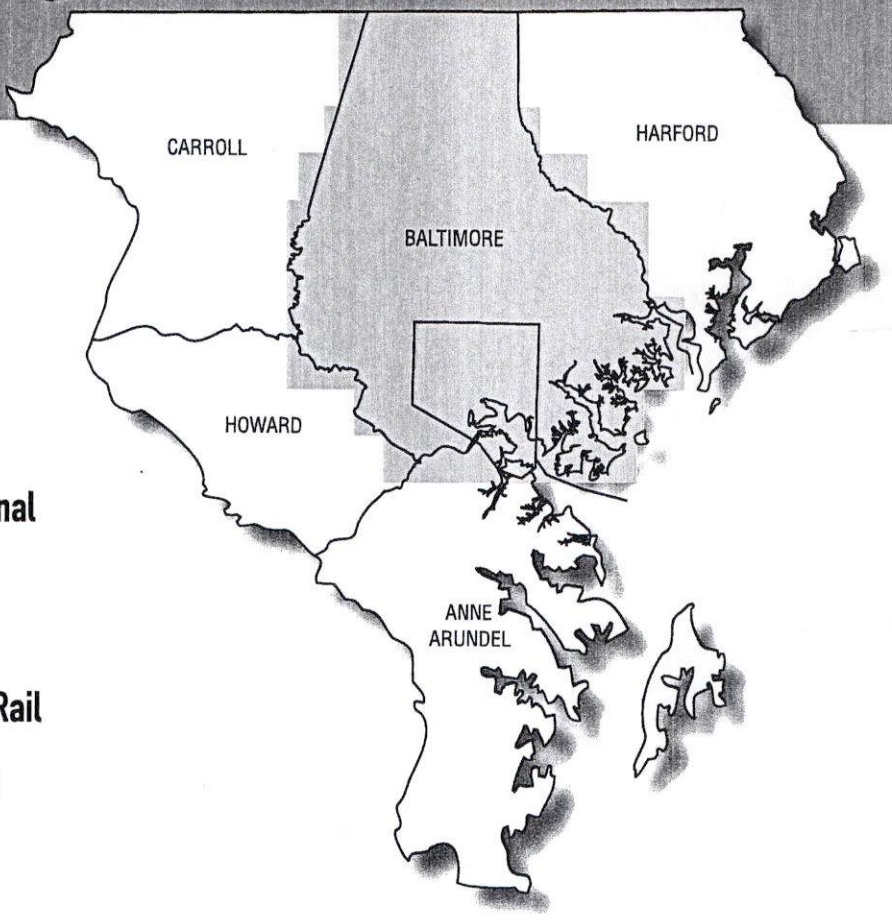
93 **Baltimore/Washington International Thurgood Marshall Airport (BWI)**

94 **Downtown Baltimore**

96 **Baltimore Metro & Central Light Rail**

97 **Maryland Rail Commuter System**

98 **Indexes**
Index of Places
Street Index
Places of Interest



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Key Map



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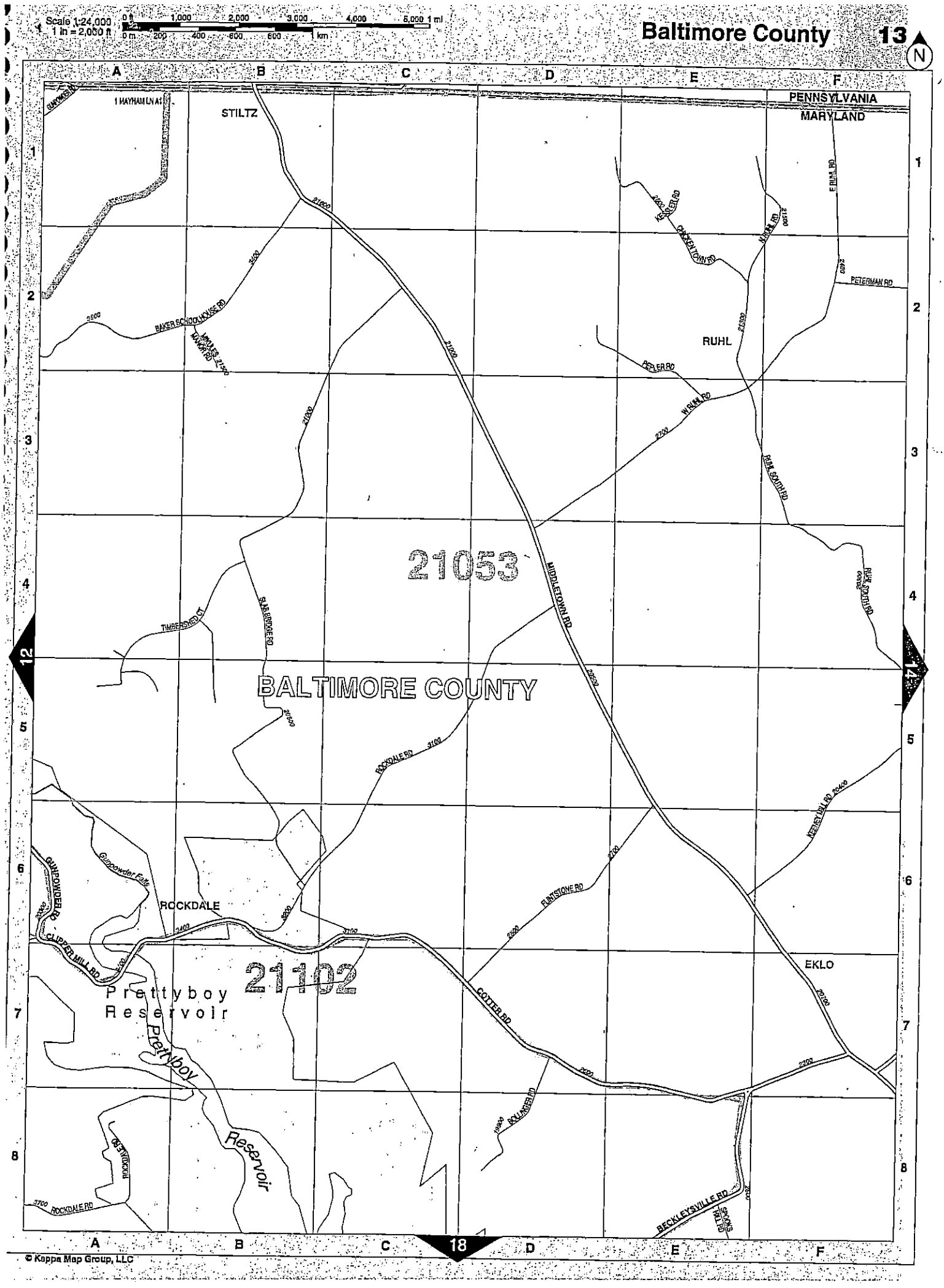
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Prettyboy Reservoir
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BAKER SCHOOLHOUSE RD
PETERMAN RD
PECKTONTOWN RD
KEYSER RD
N RUHL RD
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RUHL SOUTH RD
PEALER RD
SLAB BRIDGE RD
TIMBERSHED CT
ROCKDALE RD
GUNPOWDER RD
CLIPPER MILL RD
FLINTSTONE RD
KEEFER MILL RD
GOTTER RD
ROLLINGER RD
BECKLEYSVILLE RD
SPOONS MILL RD
BESTOCKOM RD
I MAYHAM LN
GUNPOWDER FALLS
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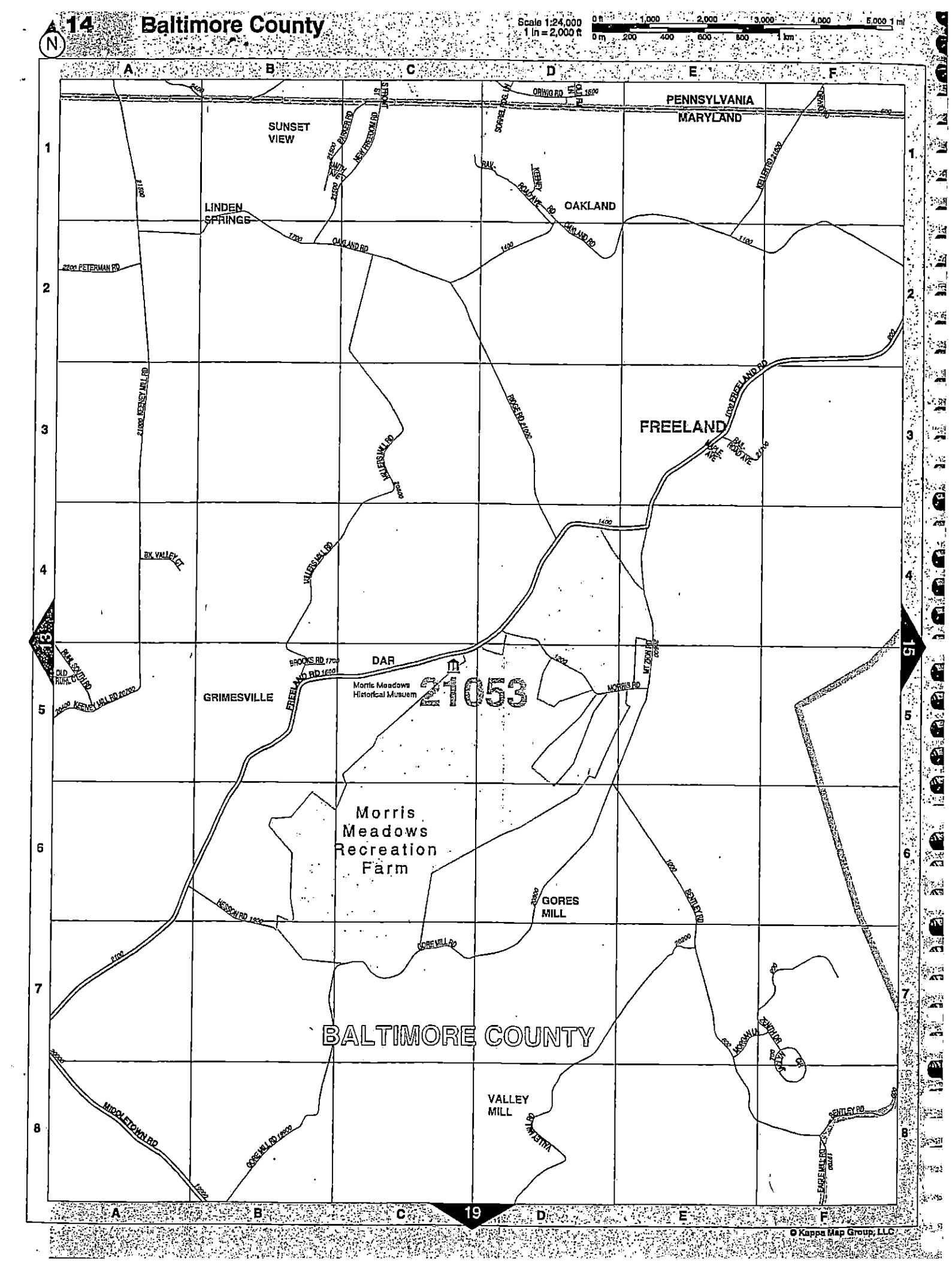
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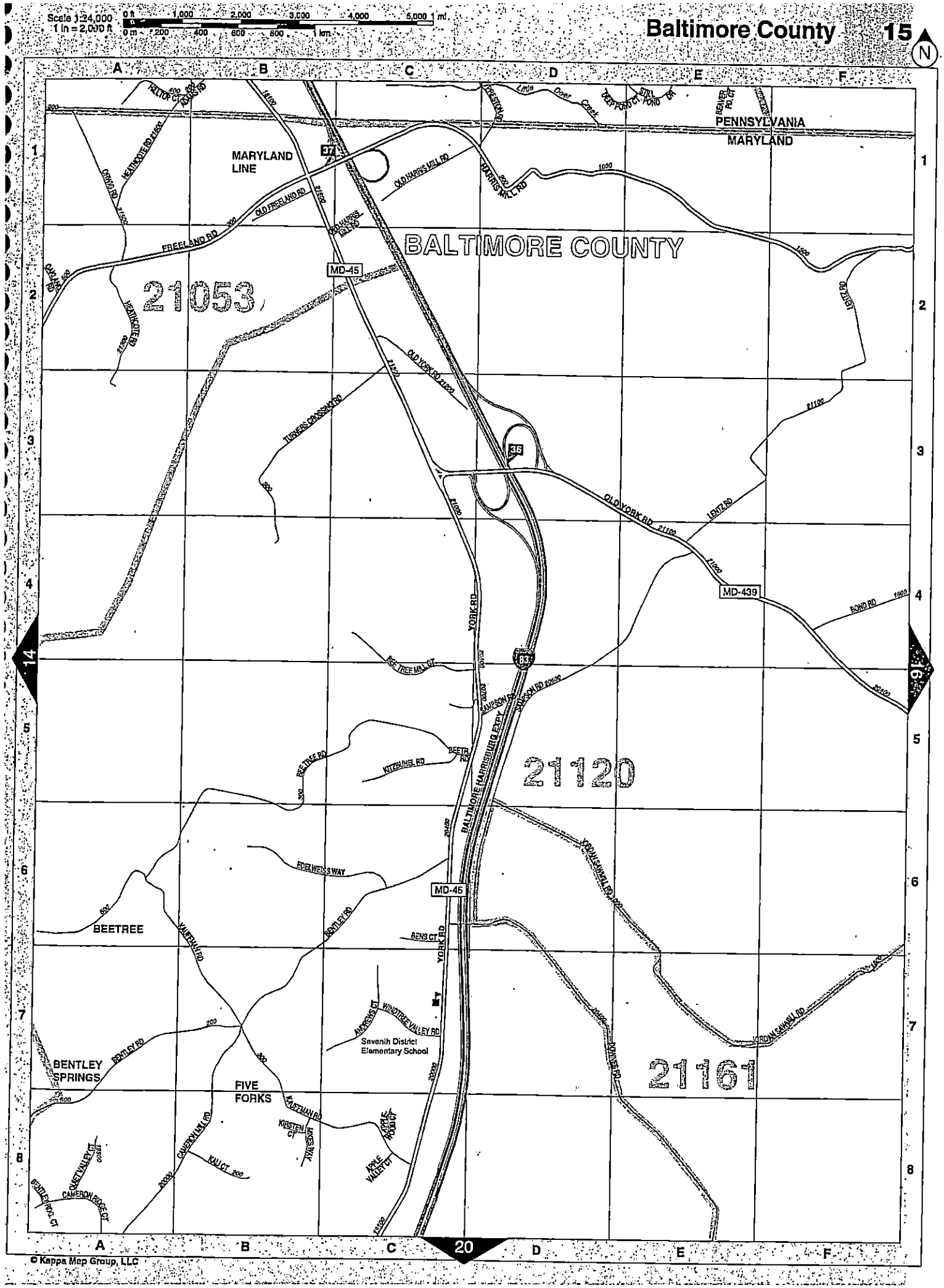
Morris Meadows Recreation Farm
GORES MILL
VALLEY MILL
BALTIMORE COUNTY
© Kappa Map Group, LLC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FREELAND RD
OLD FREELAND RD
OLD HARRIS MILL RD
HARRIS MILL RD
HEATHCOTE RD
OLD YORK RD
TURNERS CROSSWAY RD
OLD YORK RD
LENTZ RD
BOND RD
YORK RD
BEETREE RD
KITZMIEL RD
BALTIMORE HARRISBURG EXPY
EDELWEISS WAY
BEETREE
VALLEYMAN RD
BENTLEY RD
BENS CT
WINDTREE VALLEY RD
Seventh District Elementary School
BENTLEY SPRINGS
FIVE FORKS
KAUFMAN RD
CAMERON MILL RD
JORDAN SAWMILL RD
JONES RD
Little Deer Creek
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HALTOP CT
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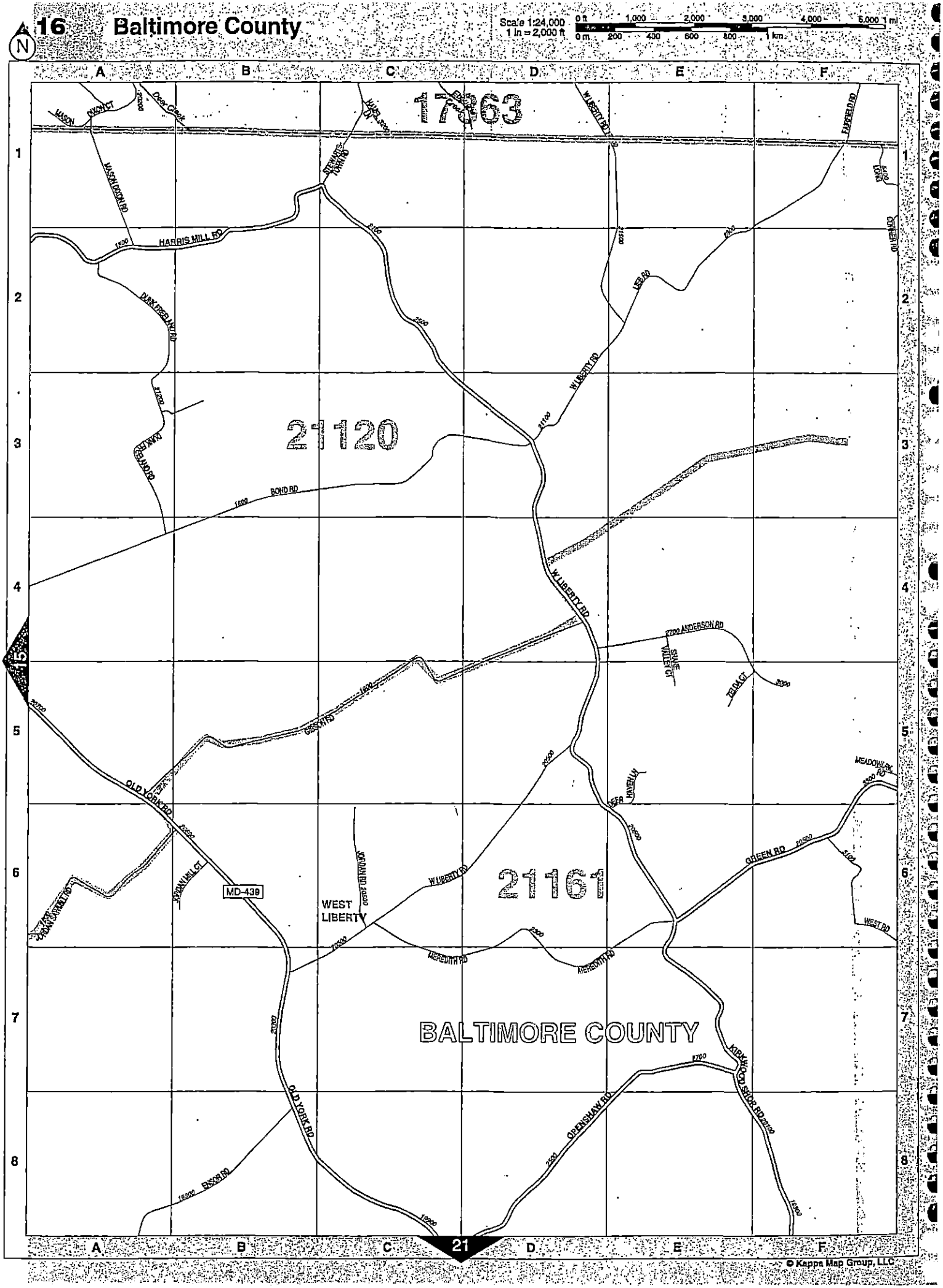

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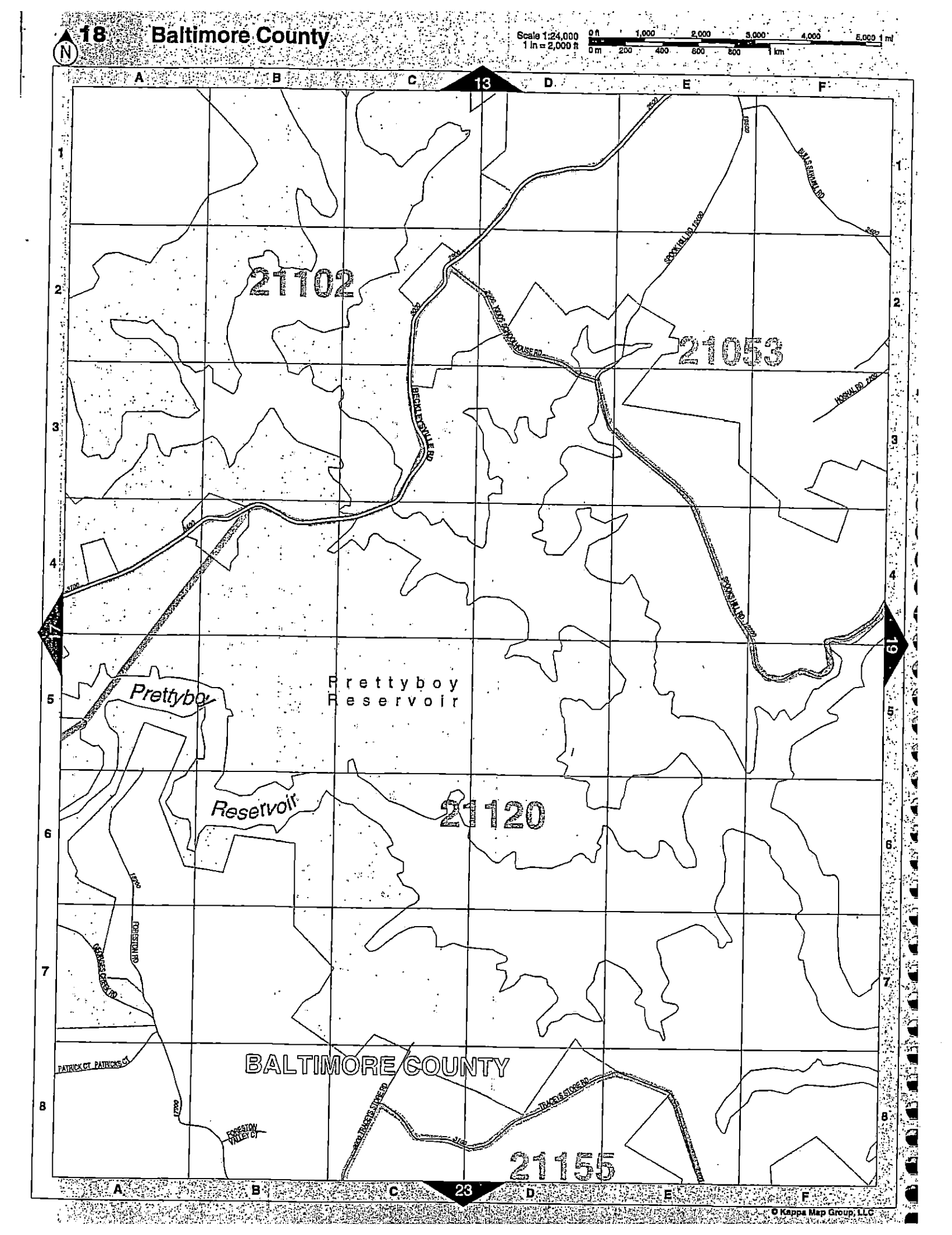
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Prettyboy Reservoir
Prettyboy
Reservoir
BALTIMORE COUNTY
BECKLEYSVILLE RD
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PATRICKS CT
FORESTON VALLEY CT
TRACEYS STORE RD
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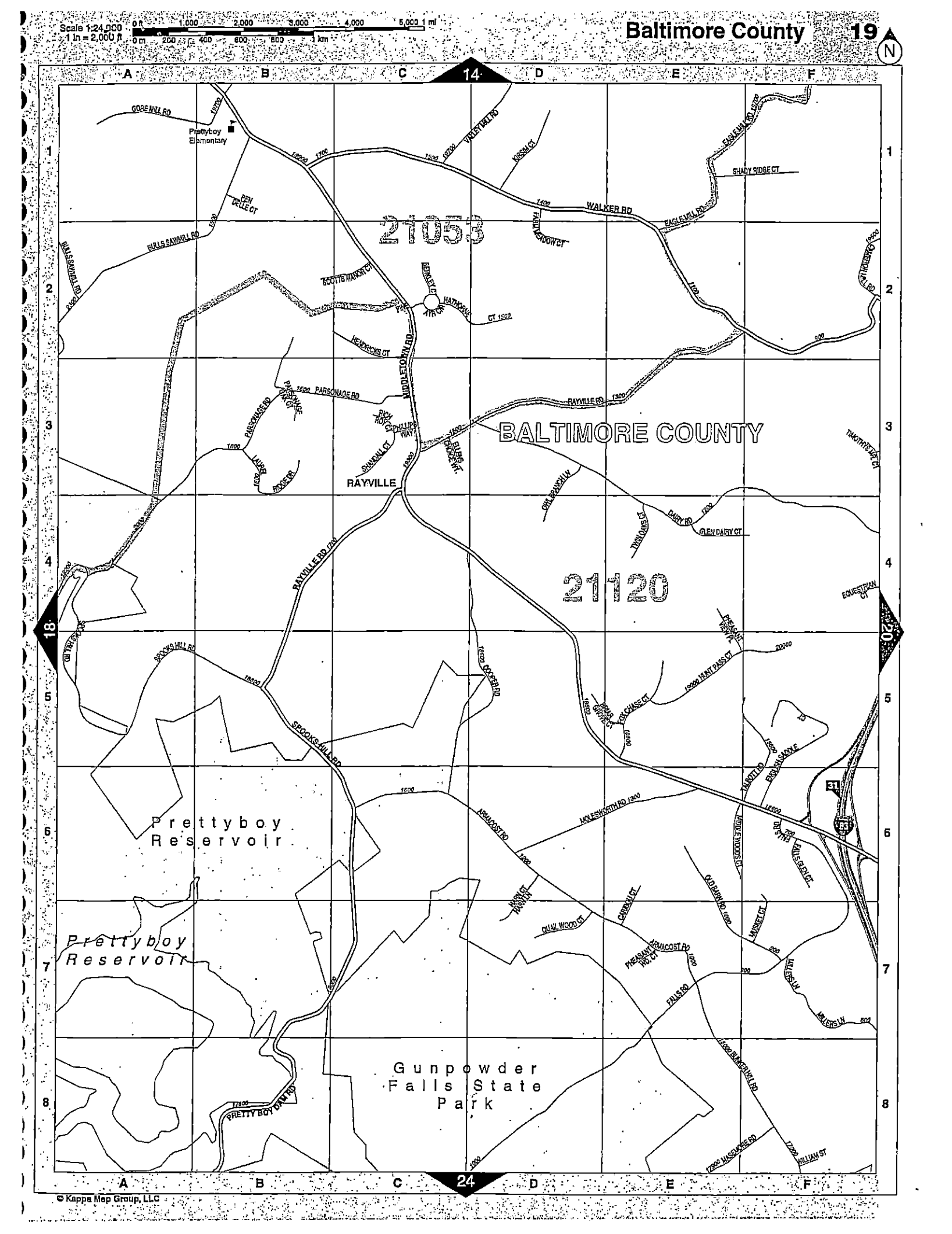

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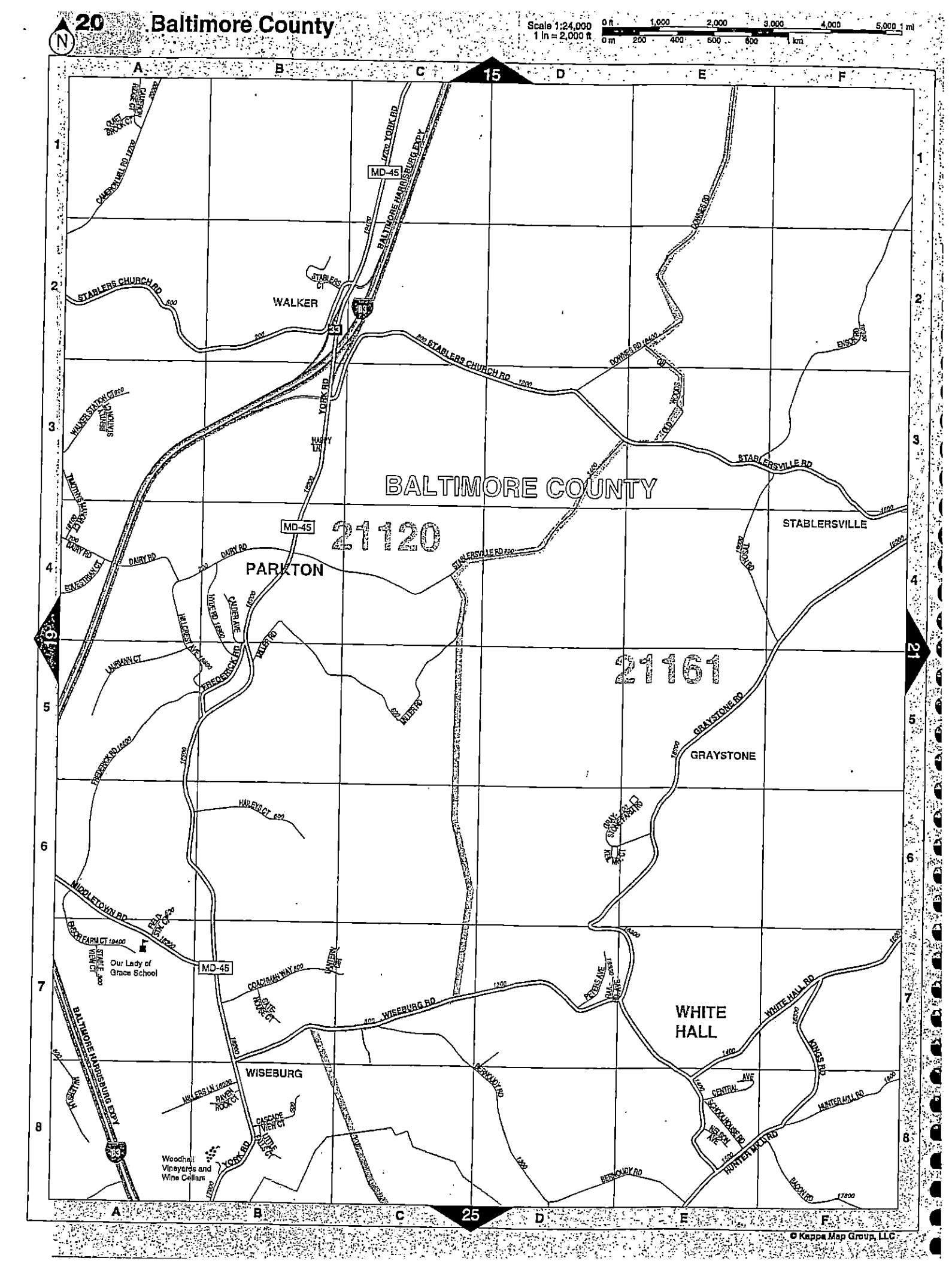
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GRAYSTONE
WHITE HALL
WISEBURG
MD-45
YORK RD
BALTIMORE HARRISBURG EXPY
STABLERS CHURCH RD
STABLERSVILLE RD
DAIRY RD
FREDERICK RD
MIDDLETOWN RD
WISEBURG RD
GRAYSTONE RD
WHITE HALL RD
HUNTER MILL RD
BERNDT RD
Our Lady of Grace School
Woodhall Vineyards and Wine Cellars
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Scale 1:24,000
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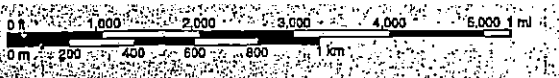

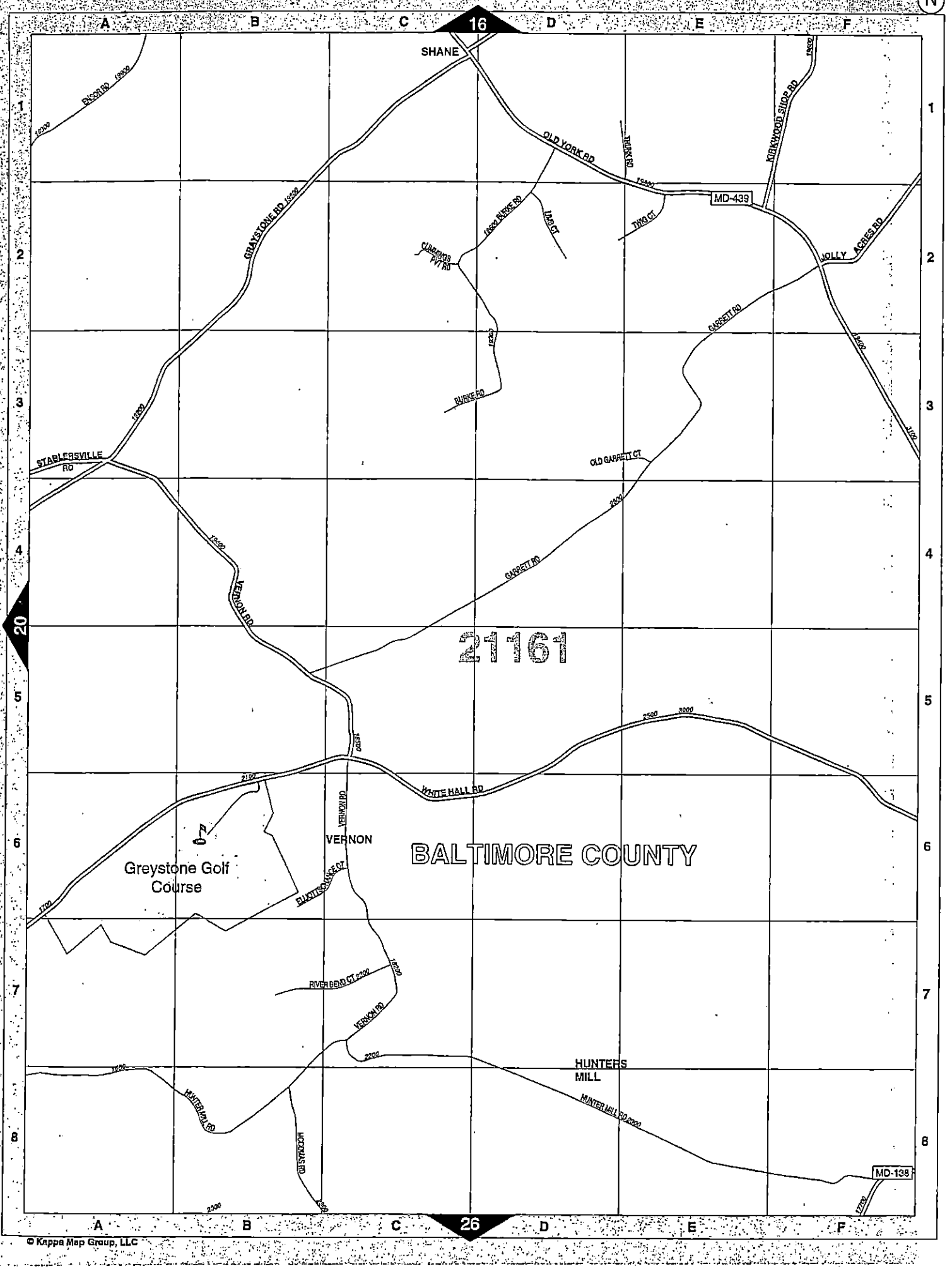

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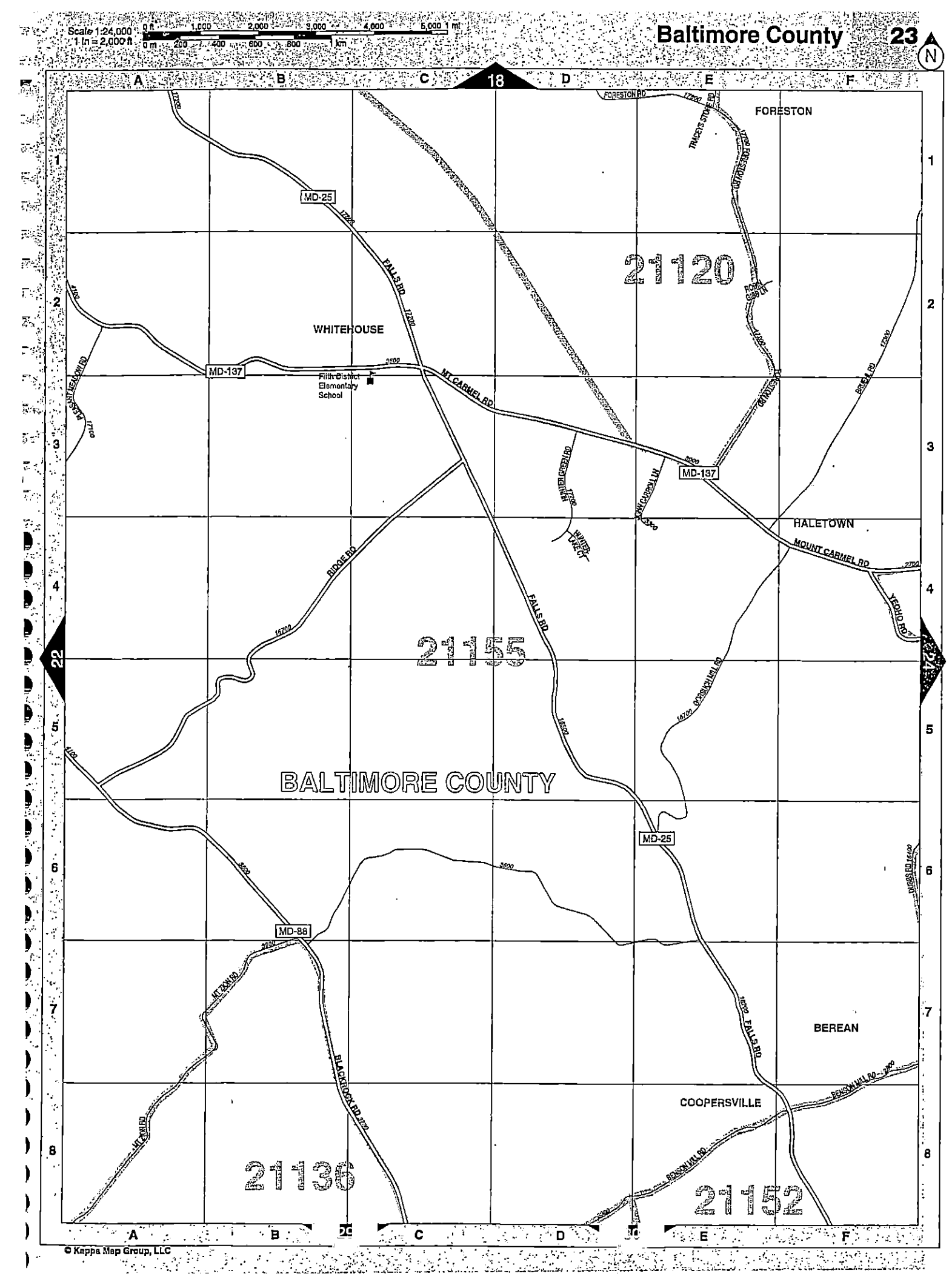

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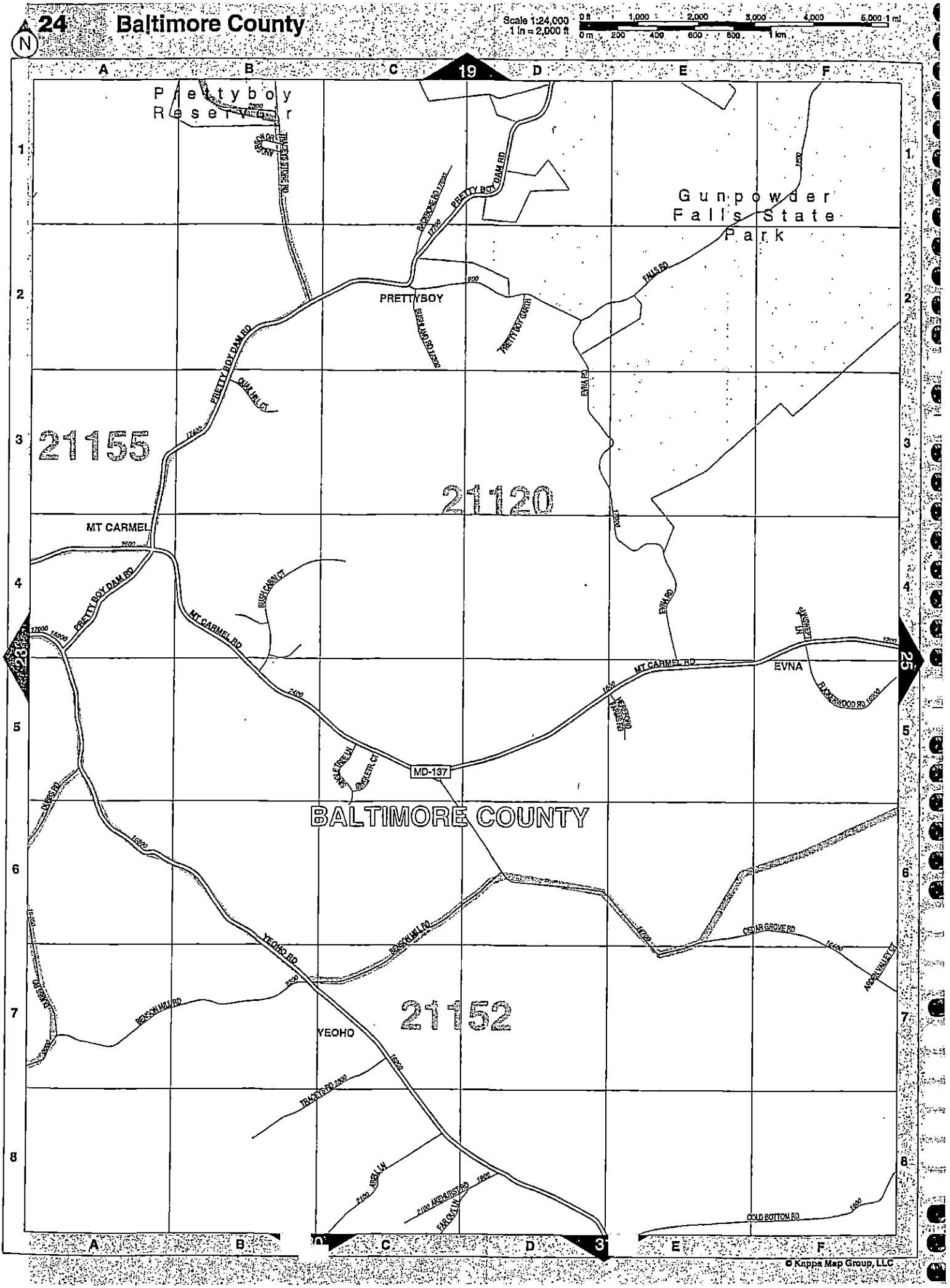

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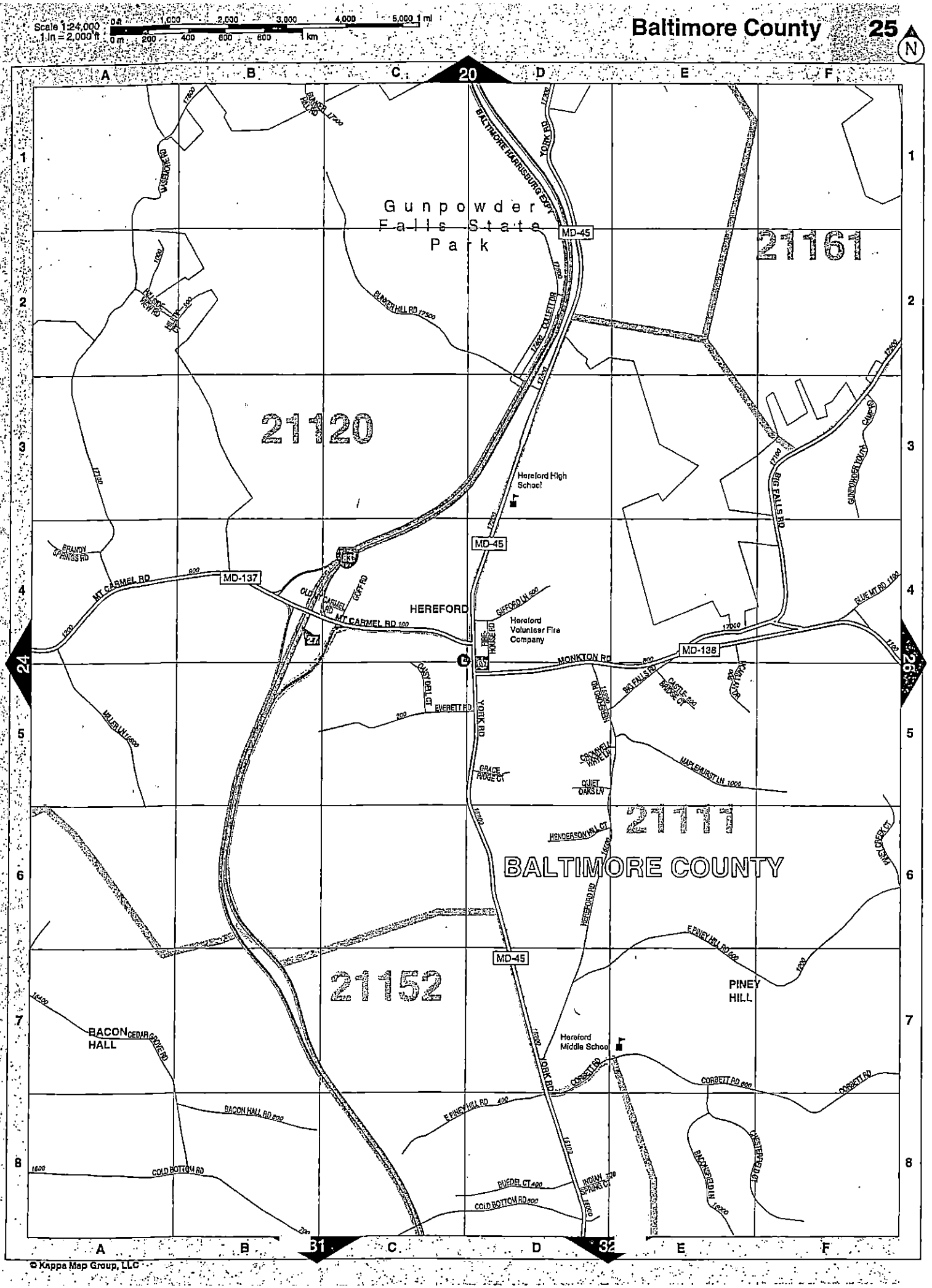

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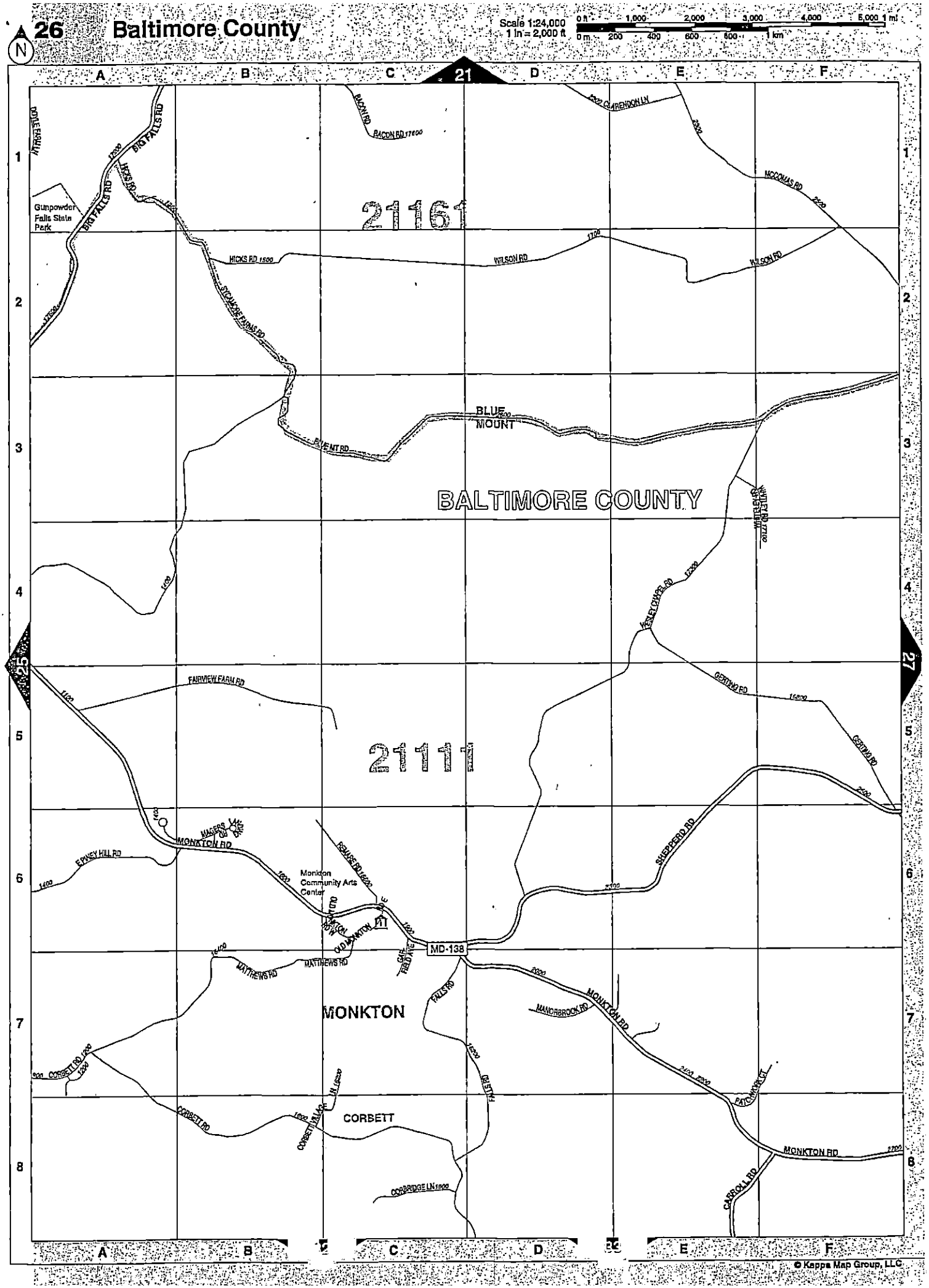

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People's Counsel's Survey; Source: 2020 Master Plan Scenic Routes Map 6, P. 100

Designated Scenic vs. Not Designated Scenic Roads: Baltimore County Northern Tier

ADC Map 13: Northwest bordering Pennsylvania line

Scenic on MP 2020 Map 26: Middletown, Keeney Mill, Cotter, Beckleysville

Not listed on MP 2020, Map 26: Ruhl (E,W,S), Flintstone, Rockdale, Clipper Mill, Baker Schoolhouse, Chickentown, Slab Bridge

ADC Map 14: Freeland, West of I-83, bordering Pennsylvania line

S: Freeland, Keeney Mill, Middletown
NS: New Freedom, Ridge, Millers Mill, Keller, Mt. Zion, Morris, Gore Mill, Hesson, Valley Mill

ADC Map 15: Maryland Line, north of Parkton, bordering Pennsylvania line

S: Freeland, York, Old York, Bond
NS: Orwig, Heathcote, Harris Mill (Old), Turners Crossing, Lentz, Jordan Sawmill, Sampson, Downes, Kauffman, Cameron Mill, Bentley

ADC Map 16: Northeast corner, bordering Pennsylvania line

S: Old York, Kirkwood Shop, Bond
NS: W Liberty, Dunk Freeland, Mason Dixon, Gibson, Meredith, Openshaw, Green, Ensor

ADC Map 18: Prettyboy Reservoir Area

S: Beckleysville, Spooks Hill
NS: Bulls Sawmill, Traceys Store, Foreston, Kidds Schoolhouse

ADC Map 19: Prettyboy, Gunpowder State Park, Rayville

S: Middletown, Spooks Hill, Falls,
NS: Rayville, Armacost, Bunker Hill, Cooper, Dairy, Walker, Eagle Mill, Bulls Sawmill, Millers Lane

ADC Map 20: Parkton, White Hall

S: York, Wiseburg, Greystone, Middletown
NS: Stablers Church, Downes, Stablersville, Miller, Ensor, White Hall, Bernoudy, Hunter Mill, Dairy, Frederick

ADC Map 21: White Hall, Greystone Golf Course

S: Graystone, Vernon
NS: Hunter Mill, Garrett, Burke, Jolly Acres

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People's Counsel's Survey; Source: 2020 Master Plan Scenic Routes Map 6, P. 100

Designated Scenic vs. Not Designated Scenic Roads: Baltimore County Northern Tier Quantitative Summary

Designated Scenic Roads: ADC Maps 13-16, 18-21

Beckleysville (13, 18), Bond (15, 16)) Cotter (13), Falls (19), Freeland (13, 14), Greystone (20, 21), Keeney Mill (13, 14), Kirkwood Shop (16), Middletown (13, 14, 19, 20), Old York (15, 16), Spooks Hill (18, 19), Vernon (21), Wiseburg (20), York (15, 20)

Summary: 14 Designated Scenic Roads

Not Designated Scenic Roads

Armacost (19), Baker Schoolhouse (13), Bentley (15), Bernoudy (20), Bulls Sawmill (18, 19); Bunker Hill (19), Burke (21), Cameron Mill (15), Chicketnown (13), Clipper Mill (13), Cooper, (19), Dairy (19, 20), Downes (15, 20), Dunk Freeland (16), Eagle Hill (19), Ensor (16, 20), Flintstone (13), Foreston (18), Frederick (20), Garrett (21) Gibson (16), Gore Mill (14), Green (16), Harris Mill (old) 15, Heathcote (15), Hesson (14), Hunter Mill (20, 21), Jolly Acres (21), Jordan Sawmill (15), Kauffman (15), Keller (14), Kidds Schoolhouse (18), Lentz (15), Mason Dixon (16), Meredith (16), Miller (20), Millers Lane (19), Millers Mill (14), Morris (14), Mt. Zion (14), New Freedom (14), Openshaw (16), Orwig (15), Rayville (19), Ridge (14), Rockdale (13), Ruhl (3: E,W,S) (13), Sampson (15), Slab Bridge (13), Stablers Church (20), Stablersville (20), Traceys Store (18), Turners Crossing (15), Valley Mill (14), Walker (19), Whitehall (20), W Liberty (16),

Summary: 59 Not Designated Scenic Roads

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BALTIMORE COUNTY, MARYLAND

Inter-Office Correspondence

TO: Hon. Lawrence M. Stahl; Managing Administrative Law Judge
Office of Administrative Hearings

FROM: Jeff Livingston, Department of Environmental Protection and Sustainability (EPS) - Development Coordination

DATE: March 13, 2018

SUBJECT: DEPS Comment for Zoning Item # 2018-0194-X
Address 632 Freeland Road
(Atkinson Property)

Zoning Advisory Committee Meeting of **February 16, 2018.**

X The Department of Environmental Protection and Sustainability offers the following comments on the above-referenced zoning item:

X Development of the property must comply with the Regulations for the Protection of Water Quality, Streams, Wetlands and Floodplains (Sections 33-3-101 through 33-3-120 of the Baltimore County Code).

X Development of this property must comply with the Forest Conservation Regulations (Sections 33-6-101 through 33-6-122 of the Baltimore County Code).

Additional Comments:

1. In order to meet State – mandated stormwater management requirements and minimize water quality impacts, the project must be designed and constructed in accordance with the attached Maryland Department of the Environment solar panel installation guidance document as part of the permit approval process.
2. Construction and operation of this solar facility must comply with Article 4E, Sections 104, 106, and 107 of County Code, in that all onsite streams, wetlands, associated buffers, and forest shall be adequately protected.

viewer: Stephen Ford, Development Coordination
Libby Errickson, Environmental Impact Review

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Stormwater Design Guidance – Solar Panel Installations

Revisions to Maryland's Stormwater Management regulations in 2010 require that environmental site design (ESD) be used to the maximum extent practicable (MEP) to mimic natural hydrology, reduce runoff to reflect forested wooded conditions, and minimize the impact of land development on water resources. This applies to any residential, commercial, industrial or institutional development where more than 5,000 square feet of land is disturbed. Consequently, stormwater management must be addressed even when permeable features like solar panel installations exceed 5,000 square feet of land disturbance.

Depending on local soil conditions and proposed imperviousness, the amount of rainfall that stormwater requirements are based on varies from 1.0 to 2.6 inches. However, addressing stormwater management does not mean that structural or micro-scale practices must be constructed to capture and treat large volumes of runoff. Using nonstructural techniques like disconnecting impervious cover reduces runoff by promoting overland filtering and infiltration. Commonly used with smaller or narrower impervious areas like driveways or open roads, the disconnection of non-rooftop runoff technique (see PP. 5.61 to 5.65 of the 2000 Maryland Stormwater Design Manual) is a low cost alternative for treating runoff in situations like rows of solar panels.

When non-rooftop disconnection is used to treat runoff, the following factors should be considered:

- The vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar panels)
- Runoff must sheet flow onto and across vegetated areas to maintain the disconnection.
- Disconnections should be located on gradual slopes (≤ 5%) to maintain sheet flow. Level spreaders, terraces, or berms may be used to maintain sheet flow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment, and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Typically this maintenance is no different than other lawn or landscaped areas. However, areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction.

Depending on the layout and number of panels installed, the disconnection of non-rooftop runoff technique may address some or all of the stormwater management requirements for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. In these situations, other ESD techniques or micro-scale practices may be needed to provide stormwater management for these features.

Example 1 – Using Non-Rooftop Disconnection Where the Average Slope ≤5%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

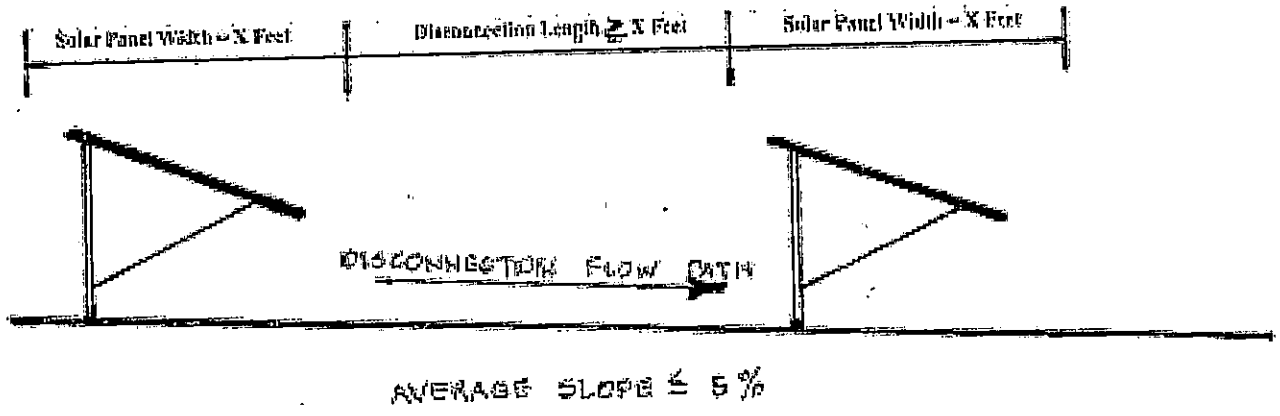

Figure 1. Typical Installation – Slope ≤5%

Example 2 – Using Non-Rooftop Disconnection Where the Average Slope ≥5% but ≤10%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2 feet wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheet flow.

Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.

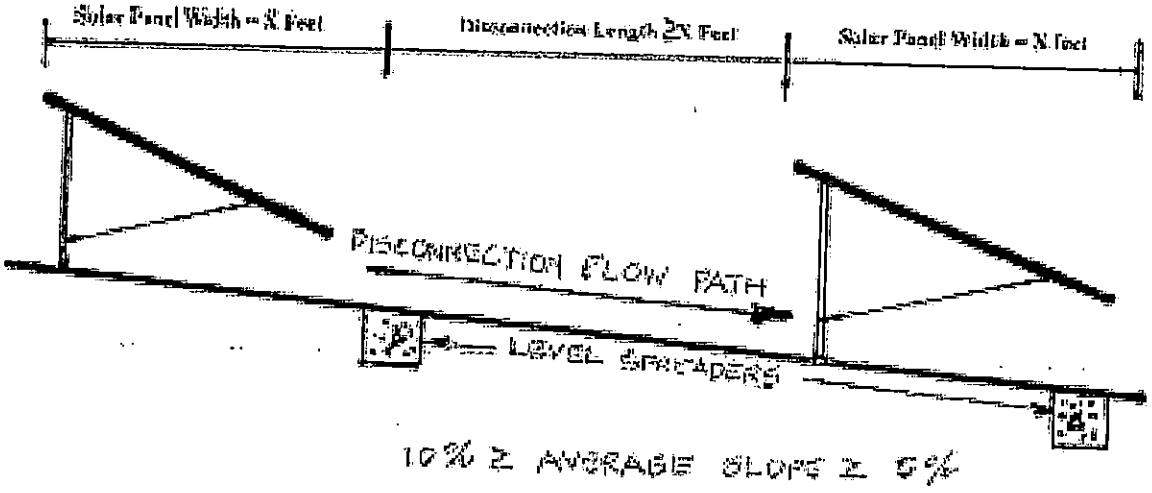

Figure 2. Typical Installation – Slope ≥5% but ≤10%

Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

Resources

1 2000 Maryland Stormwater Design Manual, Volumes I and II, MDE, October 2000 (http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx)

TITLE 3. PROTECTION OF WATER QUALITY, STREAMS, WETLANDS, AND FLOODPLAINS

Section

33-3-101. Definitions
33-3-102. Legislative findings of fact
33-3-103. Legislative intent
33-3-104. Scope
33-3-105. Authority of the Department — In general
33-3-106. Same — Variances
33-3-107. Prohibition, correction, and abatement of water pollution
33-3-108. Plan information
33-3-109. Approval of permits
33-3-110. Plats and protective covenants
33-3-111. Design standards for forest buffers and building setbacks
33-3-112. Management requirements for forest buffers
33-3-113. Conflict with other law and regulations
33-3-114. Public and private improvements of development
33-3-115. Enforcement procedures
33-3-116. Civil monetary penalties
33-3-117. [Reserved]
33-3-118. Criminal penalties
33-3-119. Liability for expenses caused by violation
33-3-120. Additional remedies for violation

§ 33-3-101. DEFINITIONS.

(a) *In general.* In this title the following words have the meanings indicated.

(b) *Agricultural operation.* "Agricultural operation" means properties used for the production of agricultural products in accordance with a soil conservation and water quality plan approved by the County Soil Conservation District.

(c) *Agriculture.*

(1) "Agriculture" means all methods of production, processing, storage, and management of livestock, crops, vegetation, and soil.

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(2) "Agriculture" includes:

(i) The related activities of tillage, fertilization, pest control, harvesting, and marketing; and

(ii) The activities of feeding, housing, maintaining animals, including cattle, dairy cows, sheep, goats, hogs, horses, and poultry and handling their by-products.

(d) *Applicant.*

(1) "Applicant" means a person requesting approval of development under this title or Article 32, Title 4 of the Code.

(2) "Applicant" includes an owner, contract purchaser, or the legally authorized representative of either.

(e) *Best management practices (BMPs).* "Best management practices (BMPs)" means conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal wastes, toxins, sediment, and runoff.

(f) *Department.* "Department" means the Department of Environmental Protection and Sustainability.

(g) *Development.* "Development" means:

(1) The improvement of property for any purpose involving building;

(2) Subdivision;

(3) The combination of any two or more lots, tracts, or parcels of property for any purpose;

(4) Subjecting property to the provisions of the Maryland Condominium Act; and

(5) The preparation of land for any of the purposes listed in items (1) through (4) of this subsection.

(h) *Forest buffer.*

(1) "Forest buffer" means a wooded area that exists or is established to protect a stream system.

(2) "Forest buffer" includes trees, shrubs, and herbaceous vegetation.

ments of Agriculture, Health and Mental Hygiene, and Natural Resources regarding enforcement procedures in cases of water pollution caused by agriculture (December 29, 1986) or subsequent memoranda.
(1988 Code, § 14-337) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 10-96, § 3, 3-23-1996; Bill No. 94-02, § 2, 7-1-2004)

§ 33-3-108. PLAN INFORMATION.

(a) *Required.* In accordance with § 33-3-104 of this title or Article 32, Title 4 of the Code, a plan approved by the Department is required for all development, forest harvesting operations, surface mining operations, and agricultural operations.

(b) *Details of plan — In general.* The plan shall include an informative, conceptual, and schematic representation of the proposed activity by means of maps, graphs, charts, or other written or drawn documents to enable the Department to make a reasonably informed decision regarding the proposed activity.

(c) *Same — Specific requirements.* The plan shall contain the following information:

(1) A location or vicinity map;

(2) Property lines;

(3) Existing structures or facilities, including buildings, roads, wells, and sewage disposal systems (include 100 feet into adjacent properties where possible);

(4) Existing and proposed contour lines;

(5) Proposed sewage disposal areas;

(6) Field delineated, marked, and surveyed streams, springs, seeps, bodies of water, and wetlands (include 200 feet into adjacent properties where possible);

(7) Field delineated, marked, and surveyed forest buffers;

(8) Department of Public Works approved riverine floodplain limits;

(9) Soils mapped and labeled in accordance with the soil survey of the county;

(10) (i) Slopes greater than 10% for areas adjacent to and within 500 feet of streams, wetlands, or other bodies of water; and

(ii) Slopes greater than 25% for all other areas;

(11) Rare species, threatened species, or endangered species habitat;

(12) Existing vegetation;

(13) Location and type of stormwater management devices and practices;

(14) Building envelopes;

(15) Existing and proposed utility lines and easements;

(16) Historical and archaeological sites;

(17) A note indicating: "There shall be no clearing, grading, construction or disturbance of vegetation in the forest buffer, except as permitted by the Baltimore County Department of Environmental Protection and Sustainability"; and

(18) Supporting documentation for variance requests, including alternatives analyses and conceptual mitigation plans.
(1988 Code, § 14-338) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, § 13, 1-16-2011)

§ 33-3-109. APPROVAL OF PERMITS.

(a) *Compliance determination.* Before the Department of Permits, Approvals and Inspections may issue any grading permit or building permit or before the approval of any erosion and sediment control plan, the Director of Environmental Protection and Sustainability or the Director's designee shall determine that the proposed development is in compliance with the provisions of this title.

(b) *No permit.* A permit may not be issued without compliance with this title.
(1988 Code, § 14-339) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, §§ 13, 30, 1-16-2011; Bill No. 72-12, § 1, 1-9-2013)

§ 33-3-110. PLATS AND PROTECTIVE COVENANTS.

(a) *In general.*

(1) (i) Any plat submitted to the county in accordance with Article 32, Title 4 of the Code shall be accompanied by irrevocable offers of dedication to the county of all forest buffer areas in fee or easements, in a form approved by the Bureau of Land Acquisition and the County Attorney.

(ii) The plat shall be marked with a notation indicating the offers of dedication.

TITLE 6. FOREST CONSERVATION

Section

33-6-101. Definitions
33-6-102. Purpose
33-6-103. Scope
33-6-104. Declaration of intent
33-6-105. General requirements for regulated activities
33-6-106. Qualified professional to prepare appropriate documents
33-6-107. Forest stand delineation
33-6-108. General requirements for forest conservation plans
33-6-109. Preliminary forest conservation plan
33-6-110. Final forest conservation plan
33-6-111. Afforestation and retention
33-6-112. Forest conservation threshold
33-6-113. Priorities and time requirements for afforestation and reforestation
33-6-114. Forest Conservation Fund
33-6-115. Approved tree species
33-6-116. Special variances
33-6-117. Certification
33-6-118. Authority and enforcement
33-6-119. Monetary penalty for noncompliance
33-6-120. Other penalties
33-6-121. [Reserved]
33-6-122. Annual report

§ 33-6-101. DEFINITIONS.

(a) *In general.* In this title the following words have the meanings indicated.

(b) *Agricultural activity.*

(1) (i) "Agricultural activity" means farming activities for production of food and fiber products, the grazing and raising of livestock, aquaculture, sod production, orchards, nurseries and other products cultivated as part of a recognized commercial enterprise and in accordance with a soil conservation and water quality plan approved by the Baltimore County Soil Conservation District.

(ii) "Agricultural activity" includes plowing, tillage, cropping, installation of best management practices, seeding, cultivating, and harvesting.

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(2) "Agricultural activity" does not include commercial logging and timber harvesting operations.

(c) *Agricultural and resource area.* "Agricultural and resource areas" means an area zoned for densities of less than or equal to one dwelling unit per 5 acres and corresponds to county zoning classifications R.C.2, R.C.4, R.C.20, or R.C.50.

(d) *Agricultural support building.*

(1) "Agricultural support building" means a building necessary to sustain an agricultural activity.

(2) "Agricultural support building" does not include a human residence.

(e) *Applicant.* "Applicant" means a person who:

(1) Is applying for subdivision or development approval, project plan approval, a building permit, a grading permit, or erosion and sediment control plan approval; or

(2) Has received approval of a forest stand delineation or forest conservation plan.

(f) *Champion tree.* "Champion tree" means the largest tree of its species within the United States, the state, or the county.

(g) *Commercial and industrial use area.* "Commercial and industrial use area" means an area zoned for manufacturing operations, office complexes, shopping centers and other similar uses and their associated storage areas, yarding, and parking areas, and corresponds to county zoning classifications R-O, R.C.C., B.L., B.M., B.R., M.R., M.L.R., M.L., M.H., S-E, B.M.M., or B.M.B.

(h) *Commercial logging or timber harvesting operations.* "Commercial logging or timber harvesting operations" means the cutting and removing of tree stems from a site for commercial purposes, leaving the root mass intact.

(i) *Critical habitat area.*

(1) "Critical habitat area" means a critical habitat for an endangered species and its surrounding protection area.

(2) A critical habitat area shall:

(i) Be likely to contribute to the long-term survival of the species;

(ii) Be likely to be occupied by the species for the foreseeable future; and

(h) *Consideration for enforcement.* In its determination of appropriate enforcement action, the Department may consider whether failure to file a declaration of intent by a person required to file was intentional and willful.
(1988 Code, § 14-404) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004)

§ 33-6-105. GENERAL REQUIREMENTS FOR REGULATED ACTIVITIES.

(a) *In general.* Unless exempt under § 33-6-103(b) of this title, a person making application after January 19, 1993, for development or subdivision approval, project plan approval, a building permit, a grading permit, grading plan approval, or erosion and sediment control plan approval for an area of land of 40,000 square feet or greater shall:

(1) Submit to the Department a forest stand delineation and a forest conservation plan for the lot or parcel on which the project is located; and

(2) Use methods approved by the Department to protect retained forests and trees during timber harvesting, tree cutting, clearing, grading, and construction and to maintain forest conservation areas, including retained, afforested, and reforested areas, after project completion.

(b) *Waiver.* If the Director finds that the size, scope, and nature of the proposed regulated activity does not justify strict compliance with this title and that a waiver would be within the scope, purpose, and intent of this title, the Director may grant a waiver to the forest stand delineation or the preliminary forest conservation plan.

(c) *Application of COMAR.* If a county agency or person using state funds makes application to conduct a regulated activity, the provisions of COMAR 08.19.04.01 D through G apply.
(1988 Code, § 14-405) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004)

§ 33-6-106. QUALIFIED PROFESSIONAL TO PREPARE APPROPRIATE DOCUMENTS.

A forest stand delineation, a preliminary forest conservation plan, and a final forest conservation plan shall be prepared by a licensed forester, licensed landscape architect, or a qualified professional who meets the requirements stated in COMAR 08.19.06.01.
(1988 Code, § 14-406, 14-408, 14-409) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004)

§ 33-6-107. FOREST STAND DELINEATION.

(a) *Submittal.*

(1) A forest stand delineation shall be submitted and reviewed with the concept plan in accordance with and subject to § 32-4-211 of the Code.

(2) A forest stand delineation for all other regulated activities shall be submitted at the initial stages of the project plan review process.

(3) The Department shall review the forest stand delineation for all other regulated activities within 45 days after receipt of the forest stand delineation.

(b) *Use.* The forest stand delineation shall:

(1) Be used during the preliminary review process to determine the most suitable and practical areas for forest conservation; and

(2) Contain the following components:

(i) A topographic map delineating intermittent and perennial streams and steep slopes over 25%;

(ii) A soils map delineating soils with structural limitations, hydric soils, or soils with a soil erodibility K value greater than 0.24 on slopes of 10% or more;

(iii) Forest stand maps indicating species, location, and size of trees and showing dominant and co-dominant forest types;

(iv) Location of riverine floodplains;

(v) Information required by the Forest Conservation Technical Manual; and

(vi) Other information required by this title.

(c) *Simplified forest stand delineation.*

(1) If approved by the Department, a simplified forest stand delineation may be submitted for an area:

(i) When no forest cover is disturbed during a construction activity; and

(ii) When the area is designated to be under a long term protective agreement.

(2) The Department shall consider a simplified forest stand delineation complete if it includes:

(i) All requirements under subsection (b)(2)(i), (ii), (iv) and (v) of this section;

(ii) A map showing existing forest cover as verified by field inspection; and

(iii) Other information required by this title.

(d) *Effective period.* An approved forest stand delineation may remain in effect for a period not longer than 5 years.

(e) *Preliminary forest conservation plan.* In addition to the forest stand delineation, elements in § 33-6-109(a)(2) and (3) of the preliminary forest conservation plan shall be submitted with the concept plan in accordance with Article 32 of the Code.
(1988 Code, § 14-406) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004; Bill No. 75-03, § 45, 7-1-2004)

§ 33-6-108. GENERAL REQUIREMENTS FOR FOREST CONSERVATION PLANS.

(a) *Priority to techniques for retaining existing forest.* In developing a forest conservation plan, the applicant shall give priority to techniques for retaining existing forest onsite.

(b) *Nonretention.* If existing forest onsite that is subject to a forest conservation plan cannot be retained, the applicant shall demonstrate to the satisfaction of the Department:

(1) How techniques for forest retention have been investigated;

(2) Why the priority forests and priority areas specified in § 5-1607(c) of the Natural Resources Article of the Annotated Code of Maryland cannot be left in an undisturbed condition;

(3) If priority forests and priority areas cannot be left undisturbed, how the afforestation or reforestation will be carried out in compliance with this title; and

(4) Where onsite in priority areas afforestation or reforestation will occur in compliance with this title.

(c) *Payment into fund — Nonretention.* If the applicant has demonstrated to the satisfaction of the Department that the requirements for forest retention onsite have been investigated, the applicant may propose to make a payment into the Baltimore County Forest Conservation Fund instead of afforestation or reforestation.

(d) *Same — Impervious area.* If the applicant is proposing to redevelop an existing impervious area outside of any forest buffer which would be required by this article, the applicant may propose to make a payment into the Baltimore County Forest Conservation Fund instead of afforestation.

(e) *Net tract area requirements.* A regulated activity within the net tract area that occurs wholly or partly in areas regulated as nontidal wetlands under Title 5, Subtitle 9 of the Environment Article

of the Annotated Code of Maryland and COMAR 26.23.04 is subject to both the nontidal wetlands regulatory requirements and the requirements of this title, subject to the following:

(1) Any area of forest in the net tract area, including forest in nontidal wetlands that is retained, shall be counted toward forest conservation requirements under this title;

(2) For the purpose of calculating reforestation mitigation under this title, a forested nontidal wetland permitted to be cut or cleared and required to be mitigated under COMAR 26.23.04 shall be shown on the forest conservation plan and subtracted on an acre for acre basis from the total amount of forest to be cut or cleared as part of a regulated activity;

(3) Nontidal wetlands shall be considered to be priority areas for retention and replacement; and

(4) Forested nontidal wetland identification and delineation should be included at the earliest stage of planning to assist the applicant in avoidance and reduction of impacts to the nontidal wetlands and to avoid delay in the approval process.
(1988 Code, § 14-407) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004; Bill No. 75-03, § 45, 7-1-2004)

§ 33-6-109. PRELIMINARY FOREST CONSERVATION PLAN.

(a) *Required information.* A preliminary forest conservation plan shall:

(1) Be submitted and reviewed with the development plan in accordance with and subject to §§ 32-4-225 and 32-4-226 of the Code;

(2) Include a table that lists the proposed values of the following, in square feet:

(i) Net tract area;

(ii) Area of forest conservation required;

(iii) Area of forest conservation that the applicant proposes to provide, including both onsite and offsite areas; and

(iv) Area of forest conservation required for which the applicant proposes to make a payment into the Baltimore County Forest Conservation Fund;

(3) Include a clear graphic indication of the forest conservation provided onsite drawn to scale, showing areas where retention of existing forest or afforestation or reforestation is proposed and the corresponding size of each area of forest conservation;

(4) Include an explanation of how the provisions of § 33-6-108 of this title have been met;

(5) In the case of afforestation or reforestation, include a proposed afforestation or reforestation planting plan;

(6) Include a proposed construction timetable showing the sequence of forest conservation procedures;

(7) Show the proposed limits of disturbance;

(8) Show proposed stockpile areas;

(9) Incorporate a proposed 3-year forest establishment and maintenance agreement that shows how areas designated for afforestation or reforestation will be established and maintained to ensure protection and satisfactory establishment;

(10) Include information required in the Forest Conservation Technical Manual; and

(11) Include other information required by this title.

(b) *Review and approval.*

(1) Except as provided in paragraph (2) of this subsection, the review and approval of the forest stand delineation and preliminary forest conservation plan shall be subject to § 32-4-227 of the Code.

(2) If § 32-4-227 of the Code is not applicable, the review and approval of the preliminary forest conservation plan shall occur during the project plan review process.
(1988 Code, § 14-408) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004; Bill No. 75-03, § 45, 7-1-2004)

§ 33-6-110. FINAL FOREST CONSERVATION PLAN.

(a) *Required provisions.* A final forest conservation plan shall:

(1) Be reviewed and approved by the Department;

(2) Show proposed locations and types of protective devices to be used during construction activities to protect trees and forests designated for conservation;

(3) In the case of afforestation or reforestation, include an afforestation or reforestation planting plan, with a timetable and description of needed site and soil preparation, species, size, and spacing to be used;

(4) Incorporate a binding 3-year forest establishment and maintenance agreement specified in COMAR 08.19.05.01 that details how the areas designated for afforestation or reforestation will be established and maintained to ensure protection and satisfactory establishment, including:

(i) Watering;

(ii) Suppression of competition; and

(iii) A reinforcement planting provision if survival rates fall below required standards, as provided in the Forest Conservation Technical Manual;

(5) Incorporate a long-term binding protective agreement as specified in COMAR 08.19.05.02 that:

(i) Provides protection for areas of forest conservation, including areas of afforestation, reforestation, and retention; and

(ii) Limits uses in areas of forest conservation to those uses that are designated and consistent with forest conservation, including recreational activities and forest management practices that are used to conserve forest;

(6) Include the substantive elements required under § 33-6-109 of this title, as finalized elements of the forest conservation plan;

(7) Contain a statement that the plan is in compliance with the 1984 watershed management agreement, as amended; and

(8) Contain other information required by this title.

(b) *Time of review.* The Department's review of a final forest conservation plan shall be concurrent with the review of the final project plan, erosion and sediment control plan, grading plan, or application for a grading permit or building permit associated with the project, as appropriate.

(c) *Department approval required.*

(1) A project plan, erosion and sediment control plan, or grading plan for regulated activities may not be approved until the final forest conservation plan has been approved by the Department.

(2) A grading permit or building permit for regulated activities may not be issued until the final forest conservation plan has been approved by the Department.
(1988 Code, § 14-409) (Bill No. 224, 1992, § 1, 1-19-1993; Bill No. 94-02, § 2, 7-1-2004)

SIGN IN SHEET FOR Case # 2018-194-X 632 Freeland Rd Day 3 9/25/2018

Clearly Print Name	Address & Zip Code	Email	Phone #	Group?
LYNNE JONES	815 STABLERS CHURCH. PARKTON 21120	dryad101@hotmail.com		S-G
Robert RoHE	21712 ORWIG Rd Freeland 21053	BobRoHE@Gmail.com		S-G
→ DAY 3 POSTPONED TO 10/9/18 ←				
LYNNE JONES	815 STABLERS CHURCH RD PARKTON 21120			
KATHLEEN PIEPER	4310 BECKLEYSVILLE RD 21074	KATHIE@STONEPONYRESTORATION.COM		NCG
Nadine Lentz	21718 Orwig Rd 21053 Freeland, Md	DonaldLentz@comcast.net		
Virginia Terhune		terhunevirginia@gmail.com		
TERESA MOORE	PO BOX 5402 Towson ~~21285~~ 21285	teresa@thevp.org		
JOHN ALTMEYER	21722 ORWIG Rd ~~Freeland~~ Freeland	@Jaltmeyer@AOL.COM		
Paul Catterton	14727 Green Rd Gallion 21077	Paulrcatterton@MSN.COM		

People's Counsel
CBA Exhibit
27

LIST OF ADMINISTRATIVE LAW JUDGE SOLAR FACILITY OPINIONS WITH PARTICULAR REFERENCE TO ACREAGE NECESSARY PER MEGAWATT

Charles & Stephen Atkinson - One Energy	Case No.: 2018-194-X	ALJ Opinion dated 4/3/2018
David Matthews- Bluefin Origination 2 LLC	Case No.: 2017-108-X	ALJ Opinion dated 1/22/2018
Robert Gerner - ESA Sparks Glencoe LLC	Case No.: 2018-047-X	ALJ Opinion dated 12/21/2017
Donald & Kathleen Lippy-New Source Generation, LLC	Case No.: 2018-052-XA	ALJ Opinion dated 10/13/2017
Jerry Phillips – Forefront Power, LLC	Case No.: 2018-072-X	ALJ Opinion dated 1/3/2018
Delores White-Rose- Forefront Power, LLC	Case No.: 2018-078-X	ALJ Opinion dated 12/7/2017
11956 Philadelphia Road, LLC – Turning Point Energy, LLC	Case No.: 2018-095-SPHXA	ALJ Opinion Dated 12/29/2017
Margaret Neubaur, et al. – Solar Smart, LLC	Case No.: 2018-123-SPHX	ALJ Opinion & Order on Motion for Reconsideration dated 3/6/2018
Margaret Neubaur, et al. – Solar Smart, LLC	Case No.: 2018-123-SPHX	ALJ Opinion dated 1/26/2018
Margaret Neubaur, et al. – Solar Smart, LLC Baltimore Gas & Electric Company	Case No.: 2018-124-SPHX	ALJ Opinion dated 1/26/2018
P52ES Under Armour Community Solar 1, LLC	Case No.: 2018-127-X	ALJ Opinion dated 5/11/2018

People's Counsel
CBA Exhibit
28

4/3/18

IN RE: PETITION FOR SPECIAL EXCEPTION (632 Freeland Road) 7th Election District 3rd Council District Charles Gary Atkinson & Stephen Gordon Atkinson *Legal Owners* OneEnergy Development, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0194-X

* * * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Charles Gary Atkinson and Stephen Gordon Atkinson, legal owners and OneEnergy Development, LLC, lessee ("Petitioners"). The petition was filed pursuant to the Baltimore County Zoning Regulations ("BCZR") to approve a Solar Facility on a property zoned RC-2.

Eric Anderson, Steve Pieper, David Wagner, John Douglas, Marni Carroll, Kate Larkin, Matthew Durette, Henry Fawell and Mitch Kellman appeared in support of the petition. Adam M. Rosenblatt, Esq. and Patsy Malone, Esq. represented the Petitioners. Several citizens attended the hearing and opposed the request. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Environmental Protection and Sustainability (DEPS), the Bureau of Development Plans Review (DPR) and the Department of Planning (DOP).

The subject property is approximately 99.46 acres in size and is zoned RC-2. The rural property is located in the Freeland area and adjoins Oakland and Freeland Roads, both of which are Baltimore County scenic routes. The property is presently farmed, and Charles Atkinson indicated in correspondence (Pet. Exhibit 3) his family has owned the farm since 1810. The owners have leased a portion of the property for a period of 35 years (which includes an initial 25 year term and a 10-year renewal option) to OneEnergy which proposes to use approximately 19 acres of the site for a solar facility. The balance of the property would continue to be farmed.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mitch Kellman, a zoning and land use planner accepted as an expert, opined the proposal was in compliance with B.C.Z.R. §502.1 and the case law interpreting that provision. While the Protestants object to using prime agricultural land in rural areas for solar facilities, the law specifically permits the use in these areas. As such, I do not believe the evidence and testimony presented by Protestants can overcome the presumption in favor of the special exception use.

One or more of the Protestants expressed concern with streams on the property, along with the potential that some of the tributaries could be classified as sensitive due to trout populations. No evidence was presented as to whether or not there are Class III or otherwise sensitive streams on the subject property. The DEPS has noted in its ZAC comment, a copy of which is attached hereto, that Petitioners will be required to comply with State-mandated stormwater management requirements specific to solar facilities. As such, I am confident that agency will impose whatever conditions may be necessary to protect nearby water resources.

THEREFORE, IT IS ORDERED this 3rd day of **April, 2018**, by this Administrative Law Judge, that the Petition for Special Exception to use the property for a Solar Facility be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comments submitted by the DOP, DEPS and DPR, copies of which are attached hereto and incorporated herein.

3. All solar panels installed on the subject property must be confined to an area no larger than 10 acres situated within the overall 18.929 Ac. special exception area shown on the site plan.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

BALTIMORE COUNTY, MARYLAND

INTEROFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Department of Permits, Approvals
And Inspections

DATE: March 1, 2018

FROM: Vishnu Desai, Supervisor
Bureau of Development Plans Review

SUBJECT: Zoning Advisory Committee Meeting
For February 12, 2018
Item No. 2018-0194-X

The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.

If Special Exception is granted a landscape plan is required per the requirements of the Landscape Manual, Bill No. 37-17 and the CMDP. Specific landscape comments:

1. Freeland and Oakland Roads are Baltimore County Scenic Routes,
2. Perimeter landscape buffers are required,
3. Must minimize tree and vegetation removal,
4. Solar panels are considered a utility and should be designed and located to harmonize with the surroundings and to create the least visual impact. (See Comment # 8, 9, & 10 below),
5. Additional landscape buffers (including contour strip buffers) may be required to address existing topography changes, Scenic Views, Scenic Routes, etc. depending on a number of items including the subject properties topography,
6. More comments may be rendered during review of the landscape plan,
7. Proposed perimeter fence shall be black vinyl-coated chain-link fence,
8. Proposed landscape screening should begin at or near the 632 Freeland Road Residence located at the southwest corner of the subject property on Oakland Road and extend eastward along Oakland Road approximately 1,000 feet to assure screening of the solar array field from Oakland Road views.
9. Both 21712 and 21722 Orwig Road are adjacent properties that need to be reviewed for possible landscape screening to be designed and installed between their property and the proposed solar facility.
10. The proposed 20-foot access road may need to have a chicane or bends to assure screening of the solar array field from Oakland Road views if landscape screening does not.
11. Additional landscape and screening may be needed to address adjacent properties views when it relates to the proposed solar facility.

Developer/Owner to grant 10-foot wide Highway Widening along frontage of Oakland Road as well as Freeland Road, at no cost to the County.

VKD: cen
cc: file

BALTIMORE COUNTY, MARYLAND
INTER-OFFICE MEMORANDUM

TO: Arnold Jablon
Deputy Administrative Officer and
Director of Permits, Approvals and Inspections

DATE: 3/27/2018

FROM: Andrea Van Arsdale
Director, Department of Planning

RECEIVED
MAR 29 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

SUBJECT: ZONING ADVISORY COMMITTEE COMMENTS
Case Number: 18-194

INFORMATION:
Property Address: 632 Freeland Road
Petitioner: Charles Gary Atkinson, Stephen Gordon Atkinson
Zoning: RC 2
Requested Action: Special Exception

The Department of Planning has reviewed the petition for a special exception to use the property for a solar facility.

A site visit was conducted on February 15, 2018. The site is situated in proximity to, but not contiguous with, two substantial agricultural preservation easements.

The Department has no objection to granting the petitioned zoning relief conditioned upon the following firmly held condition:

- The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg.177). The CMDP further states *"designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit."* (CMDP pg.175). The Master Plan 2020 confirms that the *"preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents."* (MP2020 pg.99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg.177).

- Any landscape plan submitted for review and approval shall reflect the following Scenic Route requirements:
The Department will not support an unbroken planted screen along and adjacent to the Oakland and Freeland Road frontages. The Department recommends that any landscape screening be specific to the solar compound (compound) in its location. This would take the form of a mix of native deciduous, evergreen and flowering trees with understory shrubs situated in beds having a minimum width of 30' which would ring the compound. The landscape screening would flair out in a naturalistic way to engage the existing copse

of trees situated on the east of the compound and also extend a planted mass projecting from the southwest corner of the compound outwards to the edge of Oakland Road. If treated in this fashion, no further planting is required along the scenic routes thus preserving the existing expansive view for that time in the future such as the solar compound is removed.

The following conditions are offered in addition to the above:

- If approved, Petitioners shall submit to this Department at the time of building permit application the final fixed location and area of the facility by coordinate data so that an inventory may be kept.
- Lighting shall be limited to what is required for security purposes only and will be sited in such a way as to have minimal spillage onto neighboring properties.
- Signage shall be limited to that which is necessary for safety and security purposes.
- No deliveries or outdoor maintenance which may generate excessive noise may occur on-site between the hours of 6 P.M. through 6 A.M
- Pursuant to BCZR §502.1.A, petitioners shall demonstrate to the satisfaction of the Administrative Law Judge that the facility will not be detrimental to the adjacent residential properties as a result of glare emanating from the facility.

For further information concerning the matters stated herein, please contact Wally Lippincott at 410-887-3480.

Prepared by:
Lloyd T. Moxley

Deputy Director:
Jeff Mayhew

AVA/KS/LTM/

c: Wally Lippincott
James Hermann, R.L.A., Department of Permits, Approvals and Inspections
Adam M. Rosenblatt, Esquire
Office of the Administrative Hearings
People's Counsel for Baltimore County

3-30

RECEIVED
MAR 14 2018
OFFICE OF
ADMINISTRATIVE HEARINGS

BALTIMORE COUNTY, MARYLAND

Inter-Office Correspondence

TO: Hon. Lawrence M. Stahl; Managing Administrative Law Judge
Office of Administrative Hearings

FROM: Jeff Livingston, Department of Environmental Protection and Sustainability (EPS) - Development Coordination

DATE: March 13, 2018

SUBJECT: DEPS Comment for Zoning Item #2018-0194-X
Address 632 Freeland Road
(Atkinson Property)

Zoning Advisory Committee Meeting of February 16, 2018.

X The Department of Environmental Protection and Sustainability offers the following comments on the above-referenced zoning item:

X Development of the property must comply with the Regulations for the Protection of Water Quality, Streams, Wetlands and Floodplains (Sections 33-3-101 through 33-3-120 of the Baltimore County Code).

X Development of this property must comply with the Forest Conservation Regulations (Sections 33-6-101 through 33-6-122 of the Baltimore County Code).

Additional Comments:

1. In order to meet State – mandated stormwater management requirements and minimize water quality impacts, the project must be designed and constructed in accordance with the attached Maryland Department of the Environment solar panel installation guidance document as part of the permit approval process.

2. Construction and operation of this solar facility must comply with Article 4E, Sections 104, 106, and 107 of County Code, in that all onsite streams, wetlands, associated buffers, and forest shall be adequately protected.

Reviewer: Stephen Ford, Development Coordination
Libby Errickson, Environmental Impact Review

MDE Maryland Department of the Environment

Stormwater Design Guidance – Solar Panel Installations

Revisions to Maryland's Stormwater Management regulations in 2010 require that environmental site design (ESD) be used to the maximum extent practicable (MEP) to mimic natural hydrology, reduce runoff to reflect forested wooded conditions, and minimize the impact of land development on water resources. This applies to any residential, commercial, industrial or institutional development where more than 5,000 square feet of land is disturbed. Consequently, stormwater management must be addressed even when permeable features like solar panel installations exceed 5,000 square feet of land disturbance.

Depending on local soil conditions and proposed imperviousness, the amount of rainfall that stormwater requirements are based on varies from 1.0 to 2.6 inches. However, addressing stormwater management does not mean that structural or micro-scale practices must be constructed to capture and treat large volumes of runoff. Using nonstructural techniques like disconnecting impervious cover reduces runoff by promoting overland filtering and infiltration. Commonly used with smaller or narrower impervious areas like driveways or open roofs, the disconnection of non-rooftop runoff technique (see PP. 5.61 to 5.65 of the 2000 Maryland Stormwater Design Manual) is a low cost alternative for treating runoff in situations like rows of solar panels.

When non-rooftop disconnection is used to treat runoff, the following factors should be considered:

- The vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar panels)
- Runoff must sheet flow onto and across vegetated areas to maintain the disconnection.
- Disconnections should be located on gradual slopes (≤ 5%) to maintain sheet flow. Level spreaders, terraces, or berms may be used to maintain sheet flow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment, and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Typically this maintenance is no different than other lawn or landscaped areas. However, areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction.

Depending on the layout and number of panels installed, the disconnection of non-rooftop runoff technique may address some or all of the stormwater management requirements for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. In these situations, other ESD techniques or micro-scale practices may be needed to provide stormwater management for these features.

Example 1 – Using Non-Rooftop Disconnection Where the Average Slope≤5%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

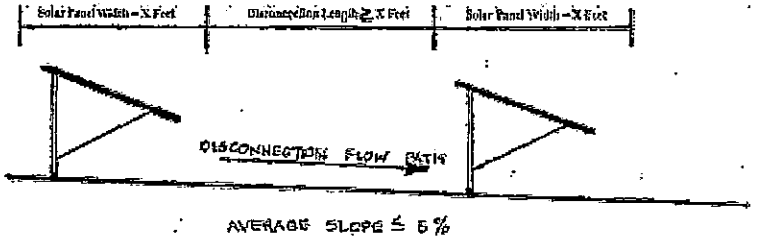

Figure 1. Typical Installation – Slope ≤5%

Example 2 – Using Non-Rooftop Disconnection Where the Average Slope ≥5% but ≤10%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2 feet wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheet flow.

Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.

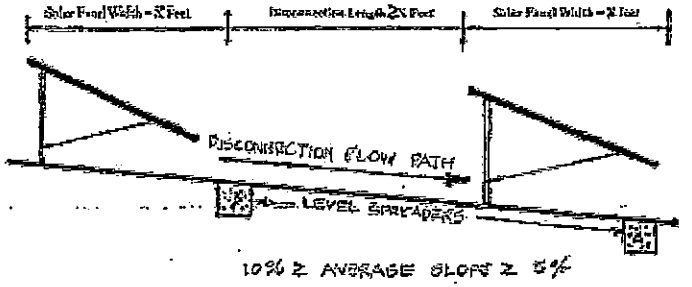

Figure 2. Typical Installation – Slope ≥5% but ≤10%

Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

Resources

1 2000 Maryland Stormwater Design Manual, Volumes I and II, MDE, October 2000 (http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwaterdesignindex.aspx)

1/22/18

IN RE: PETITION FOR SPECIAL EXCEPTION (20450 Middletown Road) 6th Election District 3rd Council District David William Matthews *Legal Owner* Bluefin Origination 2 LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2017-0108-X

* * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings ("OAH") for consideration of a Petition for Special Exception filed on behalf of David William Matthews, legal owner and Bluefin Origination 2, LLC, lessee ("Petitioners"). The Petition for Special Exception pursuant to Section 4E-102 of the Baltimore County Zoning Regulations ("B.C.Z.R.") seeks approval to operate a solar facility at the subject property.

Jeffrey S. Webber and Parker Sloan with Cypress Creek Renewables, Tim Dertebaugh, Brian Conlon, and David L. Martin, L.A. with Martin & Phillips Design Associates, Inc., the firm that prepared the site plan, appeared in support of the petition. Christopher D. Mudd, Esq. and Patricia A. Malone, Esq. represented the Petitioners. Numerous citizens attended the hearing to express opposition to the request. Substantive Zoning Advisory Committee ("ZAC") comments were received from the Department of Planning ("DOP") and the Bureau of Development Plans Review ("DPR"). Neither agency opposed the requests.

The subject property is approximately 70.979 acres and is split-zoned RC-2, RC-4, RC-5 and RC-8. The property is on Middletown Road, which is designated as a scenic route. The property was previously a farm, although with the exception of a small area there are no farming activities at the property presently. Petitioners propose to utilize 18.73 acres of the tract for a solar facility. Petitioners would install between 8,500 to 9,000 solar panels, which would generate approximately 1.9 Mw of AC electricity.

The Lessee's zoning manager, Parker Sloane, testified his company is one of the largest solar providers in the United States, with projects in 12 states. Mr. Sloane testified the panels will be approximately 9 to 10 ft. in height and will rotate throughout the day to face the sun, although he noted the movement would be imperceptible. Like other solar proposals in Baltimore County, this facility would be unmanned and the operator will perform routine inspections 1 to 2 times per year.

Mr. Sloan stated the company had an alert system that would provide immediate notification of any problem or malfunction at the site. The witness testified his company used an "industry standard tool" and determined that there will be no concern with glare from the panels. Mr. Sloane indicated that only the inverter would generate noise, which he likened to a hair dryer. But given its location on the site he stated no noise at all would be heard from outside the property boundaries. In response to questions on cross-examination, Mr. Sloane testified Cypress Creek has completed over 200 projects since 2006, and that based on reports of appraisers hired by the company they have determined solar facilities do not have an adverse impact upon property values.

Many of the citizens had questions concerning the safety of the panels, and to address these issues the Petitioners presented testimony from Jeff Webber, an engineer employed by Cypress Creek. Mr. Webber, who was accepted as an expert, described the different types of silicon used in solar panels, and the attributes of each. He testified silicon is not a hazardous material and that the modules and the racks in which they are located are made of sand, aluminum, copper wire and steel. Mr. Webber stated only the transformer could "leak", and that if that occurred only mineral oil would be discharged. He said there was only an "extremely small risk" such a leak would

occur, and he said the hardwired monitoring system would alert the company immediately if that happened.

With regard to safety, Mr. Webber testified if the electric grid went down, the solar facility would immediately shut down. The witness stated the inverter would shut off within 2 seconds in such a scenario, and that while the panels would continue to function there would not be a current of electricity flowing and there would be no danger of electrocution. In response to questions on cross examination, Mr. Webber conceded economics drives how a facility is designed. He said while it might be possible (i.e., through use of higher efficiency panels) to generate 1.9Mw of electricity on less than 18 acres, the company would incur higher costs in doing so, which would make the project less profitable and/or economically unfeasible.

The final witness was David Martin, a registered landscape architect accepted as an expert. Mr. Martin prepared both the site plan (Exhibit 1) and the schematic landscape plan (Exhibit 8) for the project. He described the project and reviewed each of the requirements of B.C.Z.R. Article 4E, which he stated Petitioners satisfied. Mr. Martin opined the use proposed was "benign," and he testified Petitioners satisfied all requirements for a special exception. He also indicated that in connection with an earlier zoning case (No. 2000-0342-SPH) involving this property—which permitted the construction of a dwelling on an undersized parcel—environmental buffers were provided to Baltimore County to protect the water and forest resources on the site.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court

again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mr. Martin opined Petitioners satisfied the requirements of B.C.Z.R. § 502.1 and applicable case law, which under *Attar* and similar cases established a *prima facie* case entitling them to the special exception. While the neighbors expressed many valid concerns with the facility, the issues they identified are inherent in the operation of a solar facility. As such, I do not believe that testimony can rebut the presumption provided by Maryland law that special exception uses are in the public interest.

Having said that, I believe the community raised one issue in particular which warrants further discussion; i.e., the size of the special exception area. The law states that the "maximum area permitted for a single solar facility is the amount of acreage that produces no more than two megawatts . . . of electricity." B.C.Z.R. §102.A.1. Based on Mr. Webber's testimony, there appear to be numerous variables involved in determining the appropriate size and design of a solar facility. As the witness noted, economics is certainly an important consideration. These facilities are operated by for-profit ventures, and Petitioners are entitled to maximize the return they receive on their land and investments.

But in this scenario, they must do so in keeping with the above-quoted provision. Similar solar facilities have been approved in several recent cases. What follows is the case number, special exception area and electricity generated:

2018-0047 (9 acres; 2Mw)
2018-0052 (6.4 acres; 1Mw)
2018-0072 (6 acres; 840Kw)
2018-0078 (9.8 acres; 2Mw)
2018-0095 (16 acres; 2Mw)

While the community opposed the request in each of the above cases (with the exception of No. 2018-0095, which was unopposed), this is the first case in which the acreage issue was squarely presented. Each of the petitioners in the above cases was (like the Lessee here) a for-profit entity, which means it is safe to assume the projects proposed were economically viable. I certainly understand there are a variety of factors which inform the design and layout of a solar facility, but based on the foregoing I believe a 13 acre special exception area would be sufficient to allow for the production of 2Mw of electricity, and such a restriction will be included below.

THEREFORE, IT IS ORDERED this 22nd day of January, 2018, by this Administrative Law Judge, that the Petition for Special Exception pursuant to Section 4E-102 of the Baltimore County Zoning Regulations ("B.C.Z.R.") for a Solar Facility, be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must submit for approval by Baltimore County a landscape plan for the site demonstrating, among other things, appropriate screening and vegetation is provided along the scenic route, as required by the Landscape Manual.

3. Petitioners shall install a fence of sufficient height surrounding the solar panels which will, per the electric code, prevent the need for a barbed wire fence enclosure.

4. No weed killers or herbicides shall be used to control weed or grass growth at the facility.

5. Prior to issuance of permits, Petitioners must satisfy the environmental regulations set forth in Article 33 of the Baltimore County Code, pertaining to the protection of water quality, streams, wetlands and floodplains.

6. No trees shall be removed from the special exception area shown on the site plan in connection with the construction and/or operation of the solar facility.

7. Petitioners shall within 30 days of the date hereof submit to the OAH a redlined site plan showing a "special exception area" for the solar facility no larger than thirteen (13) acres.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

2/12 12/21/17

IN RE: PETITION FOR SPECIAL EXCEPTION (15637 York Road) 8th Election District 3rd Council District Robert K. Gerner *Legal Owner* ESA Sparks Glenco, LLC *Lessee*	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY
	*	Case No. 2018-0047-X
Petitioners	*	

* * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Robert K. Gerner, legal owner and ESA Sparks Glenco, LLC, lessee ("Petitioners"). The Special Exception was filed pursuant to the Baltimore County Zoning Regulations ("B.C.Z.R.") to approve a 9 acre ± solar facility on a portion of a 30.723 acre parcel of land in a RC-7 zone.

Brian Quinlan, owner Robert Gerner and surveyor Bruce Doak appeared in support of the petition. Timothy M. Kotroco, Esq. represented Petitioners. Several area residents opposed the request. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Planning (DOP), the Bureau of Development Plans Review (DPR), the Department of Environmental Protection and Sustainability (DEPS) and State Highway Administration (SHA). None of the reviewing agencies opposed the requests.

The subject property is approximately 30.7230 acres and is zoned RC-7. Petitioners propose to use approximately nine (9) acres of the tract for a solar facility, and the site plan was highlighted to show this area. Exhibit 2. The property is unimproved and the proposed facility would be located approximately 1,275 ft. from York Road, which is designated as a scenic route. The nearest dwelling is approximately 750 ft. from the proposed facility.

Brian Quinlan testified he is a principal in the entity which would operate this project. He is a U.S. Naval Academy graduate with an engineering background and nearly 10 years of experience in solar energy. He testified the panels will be approximately 7 ½ ft. in height and would not emit sound or odor. Other than grass mowing between May-September and twice yearly maintenance inspections, the site will be unmanned and will not generate any traffic.

Bruce Doak, a licensed surveyor, explained he has over 30 years of experience in zoning and development matters in Baltimore County. He is a resident of northern Baltimore County and lives on a 50 acre farm, and stated he is intimately familiar with the rural portions of the north County. Mr. Doak opined the Petitioners satisfied the requirements for a special exception under B.C.Z.R. §502.1, and he believes this is an "ideal location" for the solar facility. He explained the proposed gravel access road into the site would be approximately 8 to 10 ft. wide and would be situated at least 10 ft. from any boundary line.

The neighbors at the hearing stated the solar facility was inappropriate in a rural zone. They testified the facility would be an eyesore and would be visible from their homes. There was some dispute as to whether the facility would be visible from York Road. The DOP noted in its ZAC comment the solar panels "will not be visible from York Road or adjacent residentially [sic] properties." But Al Rude and William Mayo, whose properties adjoin the subject property, disagreed and said the site will be visible from their homes and York Road as well.

Lynn Jones testified there are wetlands on the site, and she also feared that water runoff from the site and panels would flow into and increase the temperature in a nearby Class III trout stream. Several of the residents expressed dissatisfaction with the recent legislation (Bill 37-17)

which expressly permits by special exception solar facilities in all rural zones in the County. Residents testified their representative on the Council was "dead set against" the solar bill, but that the majority of the Council approved the bill allowing the facilities in RC zones. Such conflicts are inherent in the nature of our representative democracy.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Based on the testimony of Messrs. Quinlan and Doak, I believe Petitioners are entitled to special exception relief. Petitioners presented expert testimony regarding their compliance with the requisite standards for a special exception, and none of the County review agencies expressed misgivings about the proposal. I found this testimony to be credible and persuasive.

I also believe the subject property is an appropriate site for this use. Unlike several recent cases in which solar facilities have been proposed in rural areas, this site is situated over 1,200 feet from York Road and will also benefit from topographical changes and existing forest and tree cover which will help to screen the solar panels. I do not dispute the testimony of the neighbors that they will be able to view the site, especially in the fall and winter when the leaves are off the trees. But the law does not require the facilities to be invisible; instead, it specifies only that "screening of...scenic routes and scenic views" be provided in accordance with the Baltimore

County landscape manual. B.C.Z.R. §4E-104.A.6. A condition will be added below to ensure this requirement is satisfied.

I am sympathetic to the concerns raised by the neighbors, and as I stated at the hearing I would likely feel the same way if I was in their shoes. But I am not able to decide a case on that basis. I am required to evaluate zoning cases based on existing law and regulations, and cannot decide a matter based on subjective opinions. Solar panels are not aesthetically pleasing, and everyone would prefer a view from their home which featured a field, forest or pasture in its natural state. But that is true in every case involving a solar facility, and is an adverse effect the Council was presumed to have considered when it enacted this legislation. In other words, most special exception uses are regarded as "potentially troublesome because of noise, traffic, congestion...." *Montgomery County v. Butler*, 417 Md. 271, 297 (2010). As such, I believe the petition should be granted, subject to the conditions noted below which will help to "lessen the impact of the facility on the health, safety and general welfare of surrounding residential properties." B.C.Z.R. §4E-104.A.10.

THEREFORE, IT IS ORDERED this 21st day of December, 2017, by this Administrative Law Judge, that the Petition for Special Exception to approve a nine (9) acre ± solar facility on a portion of a 30.723 acre parcel of land in a RC-7 zone, be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comment submitted by the DEPS, a copy of which is attached hereto.

3. Petitioners must obtain from the State Highway Administration (SHA) a residential or farm entrance permit.

4. No trees shall be removed from the site in connection with the construction and/or operation of the solar facility.

5. No weed killers or herbicides shall be used to control weed or grass growth at the solar facility.

6. No signage or lighting shall be installed at the site in connection with the solar facility.

7. Petitioners must submit for approval by Baltimore County a landscape plan for the site.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

10-13-17

IN RE: PETITIONS FOR SPECIAL EXCEPTION AND VARIANCE (Hanover Road) 4th Election District 3rd Council District Donald E. & Kathleen Lippy *Legal Owners* New Source Generation, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0052-XA

* * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) as Petitions for Special Exception and Variance filed for property located on Hanover Road in northwest Baltimore County, not far from the Carroll County line. The Petitions were filed on behalf of Donald E. and Kathleen Lippy, legal owners of the subject property and New Source Generation, LLC, lessee. The Special Exception petition seeks approval for a solar facility. The Petition for Variance seeks to approve a minimum setback of 35 ft. in lieu of the 50 ft. setback imposed by Article 4E of the B.C.Z.R. A site plan was marked as Petitioners' Exhibit 2.

Appearing at the hearing in support of the petitions were Ken Donithan, Donald Lippy and professional land surveyor John Lemmerman. Lawrence E. Schmidt, Esq. represented Petitioners. The Hanover Road Community Association, represented by Mike McCann, Esq. opposed the request. The Petition was advertised and posted as required by the B.C.Z.R. A substantive Zoning Advisory Committee (ZAC) comment was received from the Department of Planning (DOP). That agency did not oppose the request.

The subject property is approximately 6.454 acres in size and is zoned RC 2. The property is unimproved and is currently in agricultural use. Petitioners propose to install solar panels on the property which would generate approximately one megawatt of electricity. Mr. Donithan testified at least 60% of the power generated would be used by the Lippy brothers in their farming operations in Baltimore and Carroll Counties.

Mr. Donithan testified Petitioners have obtained conditional approval from both the PSC and BGE pursuant to the community solar energy program adopted by the State of Maryland. Baltimore County has approved a final landscape plan for the project (Exhibit 6) and there will be enhanced screening along both road frontages. The facility will also be enclosed by a security fence.

SPECIAL EXCEPTION

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Based on the testimony of Messrs. Donithan and Lemmerman, and mindful of the presumption supplied by Maryland case law, I believe Petitioners are entitled to the special exception. Both witnesses stressed the project would not generate traffic or noise and the facility will for the most part be monitored remotely. Mr. Donithan testified that after construction the only regular visits to the property would be for mowing the grass. Protestant did not call any witnesses in its case and did not submit any documents or other evidence which would refute or undermine in any way the testimony and evidence presented by Petitioners. As such, the special exception will be granted.

VARIANCE

A variance request involves a two-step process, summarized as follows:

1. It must be shown the property is unique in a manner which makes it unlike surrounding properties, and that uniqueness or peculiarity must necessitate variance relief; and

2. If variance relief is denied, Petitioner will experience a practical difficulty or hardship.

Cromwell v. Ward, 102 Md. App. 691 (1995).

John Lemmerman, a professional surveyor accepted as an expert, testified the property has a unique "L" shape and is bordered by agricultural properties protected by State easements. As such I agree with his opinion the property is unique. If the B.C.Z.R. were strictly interpreted Petitioners would suffer a practical difficulty since they would be unable to complete the proposed solar facility.

Finally, I find that the variance can be granted in harmony with the spirit and intent of the B.C.Z.R., and in such manner as to grant relief without injury to the public health, safety, and general welfare. This is demonstrated by the lack of Baltimore County opposition. In addition, only one variance is sought and the relief requested is in my opinion modest, especially considering there will be enhanced landscaping along the road frontages that will mitigate the impact of the reduced setback (i.e., 35 feet in lieu of the required 50 feet).

LEGAL ISSUES

Protestant's counsel contends the petition should be dismissed since it was filed in violation of B.C.Z.R. §500.12, which concerns "subsequent petitions" after the denial of a petition for special exception. While it is true the previous petition for special exception (in Case No. 2016-0335-SPHX) was denied by the Board of Appeals, a petition for judicial review was filed and that matter is pending in the circuit court. As such, there has not been a final order denying

the earlier petition, which in my opinion renders B.C.Z.R. §500.12 inapplicable. In addition, the earlier petition sought to operate a "public utility" at the site while the special exception in this case is for a "solar facility."

Even if this were not the case, I also believe that provision should not bar the Petitioners from seeking relief in this case. Section 500.12 is in my opinion meant to address a scenario where a litigant files successive petitions for special exception involving the same use and the same property after a final denial of his initial request.

In that sense I agree with Petitioners' counsel that Section 500.12 is akin to a *res judicata* provision, and should be given a similar interpretation. This regulation appears to have been enacted in 1959, at which time Maryland law held that decisions of administrative bodies were not entitled to preclusive effect. *Seminary Galleria, LLC v. Dulaney Valley Improv. Ass'n., Inc.*, 192 Md. App. 719, 735-36 (2010). In this case specific legislation (Bill 37-17) was enacted by the County Council in June 2017, permitting solar facilities in the rural zones by special exception. A change in law will overcome a *res judicata* defense, and for similar reasons I believe it makes Section 500.12 inapplicable. In addition, it would be inequitable to require Petitioners to wait 18 months before seeking approval for a solar facility, especially since the law itself caps (at ten) the number of such facilities permitted in any council district, which makes time of the essence.

THEREFORE, IT IS ORDERED by the Administrative Law Judge for Baltimore County, this 13th day of October, 2017, that the Petition for Special Exception to approve a solar facility be and is hereby GRANTED; and

IT IS FURTHER ORDERED that the Petition for Variance pursuant to the Baltimore County Zoning Regulations (B.C.Z.R.) to approve a minimum setback of 35 ft. from the tract

boundary in lieu of the 50 ft. solar facility setback required by Article 4E of the B.C.Z.R., be and is hereby GRANTED.

The relief granted herein shall be subject to and conditioned upon the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comment of the DOP dated September 13, 2017, a copy of which is attached.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN B. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

1/3/18

IN RE: PETITION FOR SPECIAL EXCEPTION (19735 Graystone Road)	*	BEFORE THE
7th Election District	*	OFFICE OF
3rd Council District		
Jerry Phillips *Legal Owner*	*	ADMINISTRATIVE HEARINGS
Forefront Power, LLC *Lessee*	*	FOR BALTIMORE COUNTY
Petitioners	*	Case No. 2018-0072-X

* * * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Jerry Phillips, legal owner and Forefront Power, LLC, lessee ("Petitioners"). The Special Exception was filed pursuant to the Baltimore County Zoning Regulations ("B.C.Z.R.") to use the property for partial development of an 840 kilowatt (kW) A/C ground-mounted solar facility.

Brian Maliszewski (on behalf of the lessee) and professional engineer Allan Mitchell appeared in support of the petition. Lawrence E. Schmidt, Esq. represented the Petitioners. The Valleys Planning Council, Sparks-Glencoe Community Planning Council and numerous citizens opposed the requests. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Planning (DOP), the Bureau of Development Plans Review (DPR) and the Department of Environmental Protection and Sustainability (DEPS). None of the reviewing agencies opposed the requests.

The subject property is approximately 50.54 acres in size and zoned RC-2. The property is situated on Graystone Road, which is a Baltimore County Scenic Route. Petitioners propose to install 3,276 solar panels on approximately six (6) acres of land at the northern point of the site, closest to Graystone Road. The panels will be approximately 7-8 ft. in height, and a chain-link fence will enclose the solar panels. Petitioners propose to install landscaping which - - at least at maturity - - would screen the fence and panels from the view of motorists on Graystone Road.

As the undersigned noted at the hearing, it is nearly certain Petitioners will not be able to screen or enclose the panels in such a fashion that would prevent them from being seen by immediate neighbors. But the law does not require that; the zoning regulations specify only that "screening of...scenic routes and scenic views" be provided in accordance with the Baltimore County landscape manual. B.C.Z.R. §4E-104.A.6. A condition will be added below to ensure this requirement is satisfied.

Special Exception Law

Under Maryland law, a special exception is a permitted use which is presumably in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited recently in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Counsel proffered the testimony of Petitioners' witnesses (including a professional engineer) who would opine the project complied with all requirements for a special exception under B.C.Z.R. §502.1 and applicable case law. While the protestants raised many valid concerns, I do not believe that testimony is sufficient to successfully rebut the presumption under Maryland law. As such, the petition will be granted.

I am sympathetic to the concerns expressed by the community, and agree the proposed solar panels would mar an otherwise bucolic landscape along a rural roadway. But I cannot deny

the petition on that basis. That is because a six acre field of solar panels will have a negative impact upon a rural setting whether it is located in White Hall, Monkton, Sparks, Parkton or any other agricultural community in northern Baltimore County.

The County Council expressly permitted solar facilities in rural areas (including RC-2 zones) and along scenic routes, provided certain landscaping requirements are satisfied. Indeed, most special exception uses are regarded as "potentially troublesome because of noise, traffic, congestion...." *Montgomery County v. Butler*, 417 Md. 271, 297 (2010). As such, I believe the petition should be granted, subject to the conditions noted below which will help to "lessen the impact of the facility on the health, safety and general welfare of surrounding residential properties." B.C.Z.R. §4E-104.A.10.

THEREFORE, IT IS ORDERED this 3rd day of January, 2018, by this Administrative Law Judge, that the Petition for Special Exception to use the property for partial development of an 840 kilowatt (kW) A/C ground-mounted solar facility, be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comments of the Bureau of DPR & DEPS, copies of which are attached.

3. No signage or lighting shall be installed at the site in connection with the solar facility.

4. No deliveries to or maintenance of the solar facility shall occur between the hours of 6:00 PM – 7:00 AM.

5. Petitioners must submit for approval by Baltimore County a landscape plan which satisfies the requirements set forth in the Landscape Manual and B.C.Z.R. §4E-104.A.6.

6. Any expansion, enlargement and/or relocation of the solar facility as shown on the site plan admitted herein as Petitioners' Ex. 1 shall require a public hearing before the OAH.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

12/7/17

IN RE: PETITION FOR SPECIAL EXCEPTION (9155 Old Court Road) 2nd Election District 4th Council District Delores White-Rose *Legal Owner* Forefront Power, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0078-X

* * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Delores White-Rose, legal owner and Forefront Power, LLC, lessee ("Petitioners"). The Special Exception was filed pursuant to the Baltimore County Zoning Regulations ("B.C.Z.R.") to use the property for a 1,980 kilowatt (kW) A/C ground-mounted solar facility.

Kelsey Crane, Brian Maliszewski, Delores White-Rose, Shana Beiger and professional engineer Andrew Miller appeared in support of the petition. Lawrence E. Schmidt, Esq. represented the Petitioners. Cathy Wolfson, of the Greater Patapsco Community Association, attended the hearing and opposed the request. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Planning (DOP), the Bureau of Development Plans Review (DPR) the State Highway Administration (SHA), and Department of Environmental Protection and Sustainability (DEPS). None of the reviewing agencies opposed the requests.

The subject property is approximately 16.75 acres and is zoned RC-2. The property is unimproved and is situated along Old Court Road in the Granite area. Forefront proposes to install on the property 6,822 solar panels which would be enclosed within a fence. The enclosure area would be approximately 9.81 acres in size. The panels would be 6-8 feet in height and would be set back a minimum of 50 ft. from any property boundary.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Professional engineer Andrew Miller testified via proffer the facility would be unmanned and would generate no noise or traffic. While not required under County law, Forefront undertook a "glare analysis" and determined the project would satisfy Federal Aviation Administration (FAA) standards. Those standards are designed to ensure a pilot's vision is not obscured by glare, and while they are not applicable in this case it is helpful to know the project would satisfy those rigorous standards. Mr. Miller opined Petitioner satisfied the requirements of B.C.Z.R. §502.1.

A landscape plan has not yet been approved for this project, although Petitioners submitted a proposed plan (Ex. 2) which reflects that substantial vegetative buffers would be installed around the periphery of the site, and Mr. Miller did not believe the solar panels would in fact be visible to motorists on Old Court Road. A chain-link fence will also enclose the panels, and Forefront representatives indicated they would be amenable to installing slats or sheeting on the fence to soften its appearance.

Ms. Wolfson stated her association met and voted to object to the proposal, based solely upon the anticipated (negative) visual impact the project will have on the community. Solar panels certainly do not improve the view shed in a rural area; a forest or open field would have more aesthetic appeal. But the County Council recently enacted legislation (Bill 37-17) which permits such facilities in the RC zones, and the petition cannot be denied based on aesthetics. In special exception parlance, the lack of visual appeal is an inherent negative impact of the use, and the Council is presumed to have been aware of this when it enacted the legislation. Without proof that the use would have non-inherent impacts at this location I believe the petition should be granted.

THEREFORE, IT IS ORDERED this 7th day of December, 2017, by this Administrative Law Judge, that the Petition for Special Exception to use the property for a 1,980 kilowatt (kW) A/C ground-mounted solar facility in accordance with Section 4E-102 of Baltimore County Council Bill No. 37-17, be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must obtain from SHA an entrance or access permit.

3. Petitioners must comply with the ZAC comments of the DOP, DPR & DEPS, copies of which are attached.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

12/29/17

IN RE: PETITIONS FOR SPECIAL HEARING, SPECIAL EXCEPTION & VARIANCE (11956 Philadelphia Road) 11th Election District 6th Council District 11956 Philadelphia Road, LLC *Legal Owner* Turning Point Energy, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0095-SPHXA

* * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for Baltimore County for consideration of Petitions for Special Hearing, Special Exception and Variance filed on behalf of 11956 Philadelphia Road, LLC, legal owner, and Turning Point Energy, LLC, lessee ("Petitioners").

The Petition for Special Hearing was filed pursuant to § 500.7 of the Baltimore County Zoning Regulations ("B.C.Z.R") as follows: (1) asking the Administrative Law Judge (ALJ) if the requirement for a 50 ft. setback applies to an internal property line; (2) to approve shared access for an existing farm and a proposed solar facility; and (3) to approve use of an easement to connect special exception areas. In the alternative, a Petition for Variance seeks to permit a 20 ft. setback in lieu of the required 50 ft. Finally, a Petition for Special Exception was filed to permit a solar facility in the RC 5 zone.

Appearing at the public hearing in support of the requests was Mitch Kellman. Jennifer R. Busse, Esq. represented the lessee and Howard Alderman, Esq. represented the legal owner. Doug Behr, of the Greater Kingsville Civic Association, attended the hearing to obtain additional information regarding the requests. The Petition was advertised and posted as required by the Baltimore County Zoning Regulations. Substantive Zoning Advisory Committee (ZAC) comments were submitted by the Department of Planning (DOP), the Bureau of Development Plans Review (DPR) and the Department of Environmental Protection and Sustainability (DEPS). None of the reviewing agencies opposed the requests.

The subject property adjoins Interstate 95 to the north and Philadelphia Road (Md. Route 7) to the south. The site is approximately 23.55 acres in size and is zoned RC-5. The property is improved with a single-family dwelling and agricultural outbuildings (which constitute a "farm" under the B.C.Z.R.), which will remain on site. Petitioners propose to operate a solar facility on approximately 16 acres of the site, which is bisected by high-voltage power lines owned by Baltimore Gas & Electric (BGE).

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272, (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mr. Kellman testified Petitioners satisfy the requirements of B.C.Z.R. §502.1, and he believes this is an "ideal location" for the facility. He noted the site is adjacent to I-95 and a BGE electric substation, and he believed the landscaping proposed would screen the solar facility from view of motorists and/or pedestrians. This appears to be the first hearing seeking approval for a solar facility in the 6th Council district, and Mr. Kellman confirmed the property is not subject to an agricultural or preservation easement. He also advised none of the roadways adjoining the site

are designated as scenic. Based on this testimony and the exhibits presented, and in the absence of any evidence to the contrary, the petition for special exception will be granted.

Special Hearing

The petition for special hearing primarily concerns whether the 50 ft. "tract boundary" setback requirement found in B.C.Z.R. §4E-104 applies to an internal lot line at the site. As Mr. Kellman explained, the subject property is bisected by a strip of land owned in fee simple by BGE, on which are located high-voltage power lines and support structures. BGE will grant to Petitioners an easement so they may travel across this strip while constructing and/or operating the solar facility. In these circumstances, the bisecting strip/road does not create separate parcels for development and zoning purposes. *Freeland Comm. Ass'n v. HZ Props., LLC*, Ct. Special Appeals (9/16/2016, unreported). As such, the internal property lines created by the BGE strip are not considered "tract boundaries," and a variance is not required to locate the solar panels 20 feet from these lines.

The other aspect of the special hearing concerns the use of a shared access driveway. The driveway, which is shown on the redlined site plan (Ex. 3), would be used by the existing resident and the solar facility. Nothing in the law prohibits such an arrangement, and with the exception of construction traffic accompanying the installation of the panels there will be little or no vehicular traffic using the drive to access the solar facility. As such this aspect of the petition for special hearing will also be granted.

THEREFORE, IT IS ORDERED this 29th day of December, 2017, by this Administrative Law Judge, that the Petition for Special Hearing filed pursuant to § 500.7 of the Baltimore County Zoning Regulations ("B.C.Z.R."): (1) to determine the requirement for a 50 ft. setback does not apply to an internal property line; (2) to approve shared access for an existing farm and a proposed

solar facility; and (3) to approve use of an easement to connect special exception areas, be and is hereby GRANTED.

IT IS FURTHER ORDERED that the Petition for Special Exception to permit a solar facility in the RC 5 zone, be and is hereby GRANTED.

IT IS FURTHER ORDERED that the Petition for Variance to permit a 20 ft. setback in lieu of the required 50 ft., be and is hereby DISMISSED WITHOUT PREJUDICE..

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.
2. No lighting or signage (with respect to the solar facility) shall be installed at the property.
3. No trees shall be removed from the site in connection with the construction and/or operation of the solar facility.
4. Petitioners must submit for approval by Baltimore County (with a copy to the Greater Kingsville Civic Association, Inc.) a landscape plan for the site.
5. Petitioners must comply with the ZAC comment submitted by the DEPS, a copy of which is attached hereto.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB:sln

3/6/18

IN RE: PETITIONS FOR SPECIAL HEARING AND SPECIAL EXCEPTION	*	BEFORE THE
(9203 Dogwood Road)	*	OFFICE OF
2nd Election District		
4th Council District	*	ADMINISTRATIVE HEARINGS
Margaret E. Neubauer, et al		
Legal Owners	*	FOR BALTIMORE COUNTY
Solar Smart, LLC		
Lessee	*	Case No. 2018-0123-SPHX
Petitioners	*	

* * * * * * * * *

OPINION AND ORDER ON MOTION FOR RECONSIDERATION

Now pending is a Motion for Reconsideration in the above matter. By Order dated January 26, 2018 a solar facility was permitted by special exception at the subject property.

At the hearing, Petitioner's engineer testified the solar panels themselves (which would generate 0,9 MW of electricity) would occupy only 5 acres of the 25 acre site. Based on that testimony the undersigned included a condition in the order restricting the special exception area to 5 acres, which was erroneous. As explained in the motion, there will also be perimeter fencing (as required by the B.C.Z.R.) and an access road, both of which are arguably part of the solar facility. To eliminate any doubt on the point Petitioners request condition number 5 be modified to provide for a six (6) acre special exception area for the solar facility. Having received the motion and the original order I believe this is a reasonable request, and the motion will therefore be granted.

THEREFORE, IT IS ORDERED this 6th day of March 2018, by this Administrative Law Judge, that the Motion for Reconsideration be and is hereby GRANTED.

IT IS FURTHER ORDERED that Restriction Number 5, on page 4 of the January 26, 2018 Order in the captioned matter, be and is hereby Amended to read as follows:

5. "No more than six (6) acres of the subject property may be devoted to the solar facility special exception use."

IT IS FURTHER ORDERED that all other terms and conditions in the original Order shall continue in full force and effect.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

IN RE: PETITIONS FOR SPECIAL HEARING AND SPECIAL EXCEPTION	*	BEFORE THE
(9203 Dogwood Road)	*	OFFICE OF
2nd Election District		
4th Council District	*	ADMINISTRATIVE HEARINGS
Margaret E. Neubauer, et al		
Legal Owners	*	FOR BALTIMORE COUNTY
Solar Smart, LLC		
Lessee	*	Case No. 2018-0123-SPHX
Petitioners	*	

* * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of Petitions for Special Hearing and Special Exception filed on behalf of Margaret E. Neubauer, *et al,* legal owners and Solar Smart, LLC, lessee ("Petitioners"). The Special Hearing was filed pursuant to § 500.7 of the Baltimore County Zoning Regulations ("B.C.Z.R") to approve an amendment to the Minor Subdivision No. 06072M, Lot 2, to allow the development of a Solar Facility. A Petition for Special Exception was filed to allow a Solar Facility on property zoned RC 2.

Nicholas Linehan, Donald Zimmerman, Elizabeth Neubauer, Jane Culver and Ann Albrecht attended the public hearing in support of the requests. Timothy Kotroco, Esq. represented the Petitioners. Three citizens attended the hearing to obtain additional information regarding the requests. The Petition was advertised as required by the Baltimore County Zoning Regulations. Substantive Zoning Advisory Committee (ZAC) comments were received from the Bureau of Development Plans Review (DPR), Department of Planning (DOP) and the Department of Environmental Protection and Sustainability (DEPS). None of the reviewing agencies opposed the requests.

The subject property is approximately 25.268 acres in size and is zoned RC 2. The proposed solar facility would occupy approximately five (5) acres of land and would generate 0.9 MW of electricity. The lessee explained it would install approximately 3,000 fixed solar panels at the site, and would conduct routine maintenance twice yearly. The lessee has entered into a 20 year lease for the site, with an option to renew.

SPECIAL EXCEPTION

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272, (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mr. Linehan, a landscape architect accepted as an expert, testified Petitioners satisfied the requirements of B.C.Z.R. §502.1 governing special exceptions. He noted the site was well-screened by existing, mature trees and vegetation, and he also described the landscaping proposed which would provide additional screening. In light of this testimony, and in the absence of any evidence to the contrary, the petition for special exception will be granted.

Concerning the ZAC comment submitted by DPR, the undersigned respectfully disagrees that "solar panels are considered a utility." Indeed, in a 2016 zoning case (No. 2016-0335-SPHX) the undersigned made just such a determination, which was ultimately reversed by the circuit court. Bill 37-17 was enacted at least in part in response to this precedent. The landscaping requirements

for a solar facility are not specified in the Landscape Manual, which is understandable given the legislation permitting the use was enacted less than a year ago.

In fact, Bill 37-17 itself specifies that a "landscaping buffer shall be provided around the perimeter" of a solar facility that is visible from a dwelling or public street. Petitioners are aware of this requirement and the schematic landscape plan submitted at the hearing (Pet. Ex. No. 6) shows plantings in that area. There was a reference in the DOP ZAC comment to "interior contour screening" at the site. Mr. Zimmerman, an engineer employed by the Lessee, indicated that vegetation and shrubs cannot be planted among the solar panel arrays, since it would require frequent maintenance and could also interfere with or shade the solar panels. This would be antithetical to the goal of such a facility, and Petitioners shall not be required to provide landscaping inside the chain link fencing which will enclose the solar panels.

THEREFORE, IT IS ORDERED this 26th day of January 2018, by this Administrative Law Judge, that the Petition for Special Hearing to approve an amendment to Minor Subdivision No.06072M, Lot 2, to allow the development of a Solar Facility thereon, be and is hereby GRANTED.

IT IS FURTHER ORDERED that the Petition for Special Exception to allow a Solar Facility on property zoned RC 2 be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. For so long as the solar facility is operational and/or solar panels remain on the subject property, no dwelling(s) or improvements of any kind other than those shown on the site plan admitted as Exhibit 1 shall be

permitted on Lot 2 of the Minor Subdivision Plan No. 06072M.

3. Petitioners must comply with the ZAC comment submitted by DEPS, a copy of which is attached hereto and incorporated herein.

4. Prior to issuance of permits Petitioners must submit for approval by Baltimore County a landscape plan for the site providing for a buffer around the perimeter of any portion of the solar facility that is visible from a dwelling or public street.

5. No more than five (5) acres of the subject property may be devoted to the solar facility special exception use.

6. The chain link fence proposed for the site shall have black vinyl coating on all portions which are visible from a dwelling or public roadway.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

IN RE: PETITIONS FOR SPECIAL HEARING AND SPECIAL EXCEPTION (10021 Old Court Road) 2nd Election District 4th Council District Margaret E. Neubauer, et al *Legal Owners* Solar Smart, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY **Case No. 2018-0124-SPHX**

* * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of Petitions for Special Hearing and Special Exception filed on behalf of Margaret E. Neubauer, *et al*, legal owners and Solar Smart, LLC, lessee ("Petitioners"). The Special Hearing was filed pursuant to § 500.7 of the Baltimore County Zoning Regulations ("B.C.Z.R") to approve an amendment to Minor Subdivision No. 06059M, Lot 1, to allow the development of a Solar Facility. A Petition for Special Exception was filed to allow a Solar Facility on property zoned RC 2.

Nicholas Linehan, Donald Zimmerman, Elizabeth Neubauer, Jane Culver and Ann Albrecht attended the public hearing in support of the requests. Timothy Kotroco, Esq. represented the Petitioners. Four citizens attended the hearing to obtain additional information regarding the requests. The Petition was advertised as required by the Baltimore County Zoning Regulations. Substantive Zoning Advisory Committee (ZAC) comments were received from the Bureau of Development Plans Review (DPR), Department of Planning (DOP), State Highway Administration (SHA) and the Department of Environmental Protection and Sustainability (DEPS).

The subject property (known as Lot 1) is approximately 62.386 acres in size and is zoned RC 2. Petitioners propose to construct a solar facility on approximately 10 acres of the subject property, as delineated on the site plan admitted as Exhibit 1. A solar facility is permitted by special exception in the RC 2 zone.

SPECIAL EXCEPTION

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272, (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Mr. Linehan, a landscape architect accepted as an expert, testified Petitioners satisfied the requirements of B.C.Z.R. §502.1 governing special exceptions. He indicated the Lessee would install approximately 6,000 solar panels on two separate "pods" at the site, which would generate approximately 1.98 MW of electricity. He described the site plan in detail and discussed the landscaping proposed for the project, which would for the most part screen the solar facility from adjacent homes and motorists on Old Court Road, which is a scenic route. In light of this testimony, and in the absence of any evidence to the contrary, the petition for special exception will be granted.

Concerning the ZAC comment submitted by DPR, the undersigned respectfully disagrees that "solar panels are considered a utility." Indeed, in a 2016 zoning case (No. 2016-0335-SPHX) the undersigned made just such a determination, which was ultimately reversed by the circuit court. Bill 37-17 was enacted at least in part in response to this precedent. The landscaping requirements

for a solar facility are not specified in the Landscape Manual, which is understandable given the legislation permitting the use was enacted less than a year ago.

In fact, Bill 37-17 itself specifies that a "landscaping buffer shall be provided around the perimeter" of a solar facility that is visible from a dwelling or public street. Petitioners are aware of this requirement and the schematic landscape plan submitted at the hearing (Pet. Ex. No. 2) shows plantings in those areas. There was a reference in the DOP ZAC comment to "interior contour screening" at the site. Mr. Zimmerman, an engineer employed by the Lessee, indicated that vegetation and shrubs cannot be planted among the solar panel arrays, since it would require frequent maintenance and could also interfere with or shade the solar panels. This would be antithetical to the goal of such a facility, and Petitioners shall not be required to provide landscaping inside the chain link fencing which will enclose the solar panels. .

THEREFORE, IT IS ORDERED this 26th day of January 2018, by this Administrative Law Judge, that the Petition for Special Hearing to approve an amendment to Minor Subdivision No. 06059M, Lot 1, to allow the development of a Solar Facility thereon, be and is hereby GRANTED.

IT IS FURTHER ORDERED that the Petition for Special Exception to allow a Solar Facility on property zoned RC 2 be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. For so long as the solar facility is operational and/or solar panels remain on the subject property no dwelling(s) or improvements of any kind other than those shown on the site plan admitted as Exhibit 1 shall be

permitted on Lot 1 of Minor Subdivision Plan No. 06059M.

3. Petitioners must comply with the ZAC comment submitted by DEPS, a copy of which is attached hereto and incorporated herein.

4. Prior to issuance of permits Petitioners must submit for approval by Baltimore County a landscape plan for the site providing for a buffer around the perimeter of any portion of the solar facility that is visible from a dwelling or public street.

5. The chain link fence proposed for the site shall have black vinyl coating on all portions which are visible from a dwelling or public roadway.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

5/4/18

IN RE: PETITION FOR SPECIAL EXCEPTION (10790 Raphel Road) 11th Election District 5th Council District Baltimore Gas & Electric Company *Legal Owner* P52ES Under Armour Community Solar 1, LLC *Lessee* Petitioners	*	BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS FOR BALTIMORE COUNTY Case No. 2018-0127-X

* * * * * * * * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (OAH) for consideration of a Petition for Special Exception filed on behalf of Baltimore Gas and Electric Company, legal owner and P52ES Un der Armour Community Solar I, LLC, lessee ("Petitioners"). The petition was filed pursuant to the Baltimore County Zoning Regulations ("BCZR") to approve a Solar Facility.

Robert Wallace appeared on behalf of the lessee in support of the petition. Patsy Malone, Esq. represented the Lessee. Two citizens attended the hearing to obtain additional information about the project. Substantive Zoning Advisory Committee (ZAC) comments were received from the Department of Environmental Protection and Sustainability (DEPS), the Bureau of Development Plans Review (DPR) and the Department of Planning (DOP). None of the reviewing agencies opposed the request.

The subject property is approximately 138 acres in size and is zoned RC-5. The Lessee proposes to lease from BGE a portion of the site to operate a solar facility which will produce 2MW of electricity. The special exception area shown on the plan is approximately 16.64 acres although the solar panels themselves would occupy only about eight (8) acres of land.

Special Exception

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). The *Schultz* standard was revisited in *Attar v. DMS Tollgate, LLC*, 451 Md. 272 (2017), where the court of appeals discussed the nature of the evidentiary presumption in special exception cases. The court again emphasized a special exception is properly denied only when there are facts and circumstances showing that the adverse impacts of the use at the particular location in question would be above and beyond those inherently associated with the special exception use.

Edward Tom, a registered landscape architect accepted as an expert, described the proposed landscaping for the project, and noted that only one portion of the large site facing Raphel Road is visible to motorists or others travelling past the property. As such landscaping will be provided in that area and Petitioners propose to install a variety of vegetation to create a naturalistic border. Mitch Kellman, a land use planner accepted as an expert, confirmed the project complies with all restrictions and requirements of Article 4E of the BCZR governing solar facilities. He also opined Petitioners have satisfied the requirements for special exception relief as set forth at BCZR §502.1.

Doug Behr, on behalf of the Greater Kingsville Civic Association, Inc., (GKCAI) indicated the community would prefer Petitioners to remove some of the existing macadam and provide additional landscaping near the intersection of Raphel and Philadelphia Roads. He explained for many years a farm stand was operated at this portion of the site, which is now a vacant parking lot with broken asphalt and gravel. Counsel indicated Petitioners were willing to work with the community to address this issue, which would greatly improve the appearance of this portion of the site which is immediately adjacent to two roadways.

THEREFORE, IT IS ORDERED this 11th day of May, 2018, by this Administrative Law Judge, that the Petition for Special Exception to use the property for a Solar Facility be and is hereby GRANTED.

The relief granted herein shall be subject to the following:

1. Petitioners may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioners are hereby made aware that proceeding at this time is at their own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioners would be required to return the subject property to its original condition.

2. Petitioners must comply with the ZAC comment submitted by the Bureau of DPR, a copy of which is attached hereto and incorporated herein.

3. Petitioners, in consultation with the County's landscape architect and the GKCAI, shall use good faith efforts to attempt to honor the community's request for additional landscaping near the intersection of Raphel and Philadelphia Roads.

4. No signage (other than temporary construction signs) or lighting shall be permitted on the property in connection with the solar facility.

5. The solar panels themselves shall occupy no more than eight (8) acres of the special exception area shown on the site plan.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/sln

SIGN IN 11/27 FREELAND SOLAR BOA

Printed Name	Signature	Address		Date
LYNNE JONES		815 STABLERS CHURCH RD PARKTON 21120		
KATHIE PIEPER		4310 BECKLEYSVILLE ROAD HAMPSTEAD, 21074		
Paul Solomon		2473 Steltz Rd, E. Freedom, Pa		11/27/18
Nadine Lentz		21718 Orwig Rd Freeland Md 21053		11/27/18
John Altmeyer		21722 Orwig Rd Freeland, Md		
ROBERT ROHE		21712 ORWIG RD Freeland MD 21053		11-27-18
~~Brian Acosta~~				
John Zahner		1732 Oakland Rd, Freeland, MD 21053		11-27-18

People's Counsel
CBA Exhibit
29

Case No.: 2018-0194-X

Exhibit Sheet

SEN 4-3-18

Petitioner/Developer | Protestant

No. 1	Plan	Aerial exhibit showing Waterways + Ag Lands
No. 2	Aerial-Schematic Plan	Aerial w/ photos 1-7 of Atkinson property
No. 3	Letter from Charles Atkinson	Exhibit re: road frontage on Oakland Rd.
No. 4	Carroll CV	Panoramic Photo of Site
No. 5	Solar Project Guidebook	
No. 6	Glare Analysis	
No. 7	3-28-18 Letter from Sierra Club	
No. 8	Durette CV	
No. 9	Douglas CV	
No. 10	Schematic Landscape Plan	
No. 11	3-29-18 Letter from James Hermann, RLA	
No. 12	Kellman CV	

Case No.: 2018-194

Exhibit Sheet - Continued

	Petitioner/Developer	Protestants
No. 13	13A-H Photos	
No. 14	Scenic View exhibit	
No. 15	Driving directions Freeland → Hampstead	
No. 16		
No. 17		
No. 18		
No. 19		
No. 20		
No. 21		
No. 22		
No. 23		
No. 24		

My name is Charles Gary Atkinson and I reside at 632 Freeland Rd. Various members of the family have lived on this farm since 1810. My grandmother and grandfather preceded me and acquired the farm from a deceased relative's estate in 1947. I have always treasured the farm and its woodland and stream and was pleased when One Energy Renewables requested a lease for a solar facility. This option was perfect for me because I believe that the lease will make the farm too valuable for my descendants to want to change it to some type of development.

I am very much in favor in reducing the dependence on fossil fuels and the pollution that results from its use. I believe that wind and solar are the wave of the future and will leave clean air for my grandchildren and their children. I believe solar is a good option for a farm since at any time in the future it could be removed and leave the land just as it was before it was installed. You can't say the same for a house or shopping center.

I believe a solar facility is the best option for making the farm self-supporting and leaving a large amount of land which will continue to be farmed in an environmentally safe way. I would like to think that some day my descendants will say that I was in on the beginning of the wave of the future in producing clean, pollution free energy.

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Best,
Kate

KATE LARKIN
MANAGER + PRC

206.900.9930 |D
206.922.7072 |M

kate
@oneenergy
renewables.com

PETITIONER'S EXHIBIT 3

Marni Leigh Carroll

Qualifications Fourteen years of experience in the renewable energy industry as regional director, project developer, and federal policy lead. Deep transactional experience with small and large scale solar and wind projects across the country. Successfully executed greenfields, acquisitions and joint ventures totaling more than 400 MWs (megawatts) of operating wind and solar projects.

Experience

2017-Current **OneEnergy Renewables** Washington, DC
Director, Project Development

- Lead a portfolio of community solar projects in Maryland and utility scale projects in Virginia
- Implement company commitments to pollinator-friendly solar habitat
- Advocate for clean energy policy including testifying at state legislative hearings
- Representative for the company at MDV-SEIA (Solar Energy Industry Association)

2014-2017 **Sun Edison, LLC/ForeFront Power, LLC** Bethesda, MD
Director, PJM and NE-ISO

- Responsible for a portfolio of over 30 solar projects in NE-ISO and PJM regions
- Oversee strategy, budgets and forecasts for rooftop, landfill, ground, and canopy projects
- Managed and trained a team of seven junior project managers and project analysts
- Drove 12 MW of rooftop and ground mounted projects in Maryland from inception to operation

2009-2014 **Avangrid (Iberdrola USA and Iberdrola Renewables)** Washington, DC
Manager, Government Affairs

- Lobbied members of Congress and the Administration to promote clean energy
- Influenced policies of concern to Central Main Power, New York State Gas and Electric and Rochester Gas & Electric, the company's regulated electricity and natural gas distribution utilities
- Represented the company in trade associations including the American Wind Energy Association and the Solar Energy Industry Association

2007-2009 *Lead Developer,* Portland, Oregon

- Created east coast solar market entry strategy and originated portfolios in New Jersey and Maryland
- Led the development of more than 500 megawatts (MW) of wind projects in CA, OR, and WA including the 250 MW Juniper Canyon Wind Farm (WA) and 132 MW Tule Wind Farm (CA)

2004-2006 *Program Manager,* Portland, Oregon

- Managed budgets, and schedules and valuation of a 8,000 MW pipeline of wind and solar projects.
- Evaluated competitive landscape, acquisitions, and financial value of the pipeline

Education

Yale School of Management, Yale School of Forestry and Environmental Studies
Masters of Business Administration (MBA)
Master of Environmental Management (MEM)

University of California at Santa Cruz

- Bachelor of Arts (BA) in Environmental Policy, with Honors

PETITIONER'S EXHIBIT 4

@oneenergyinc

OneEnergy
RENEWABLES

oneenergy
renewables
.com

SOLAR PROJECT GUIDEBOOK

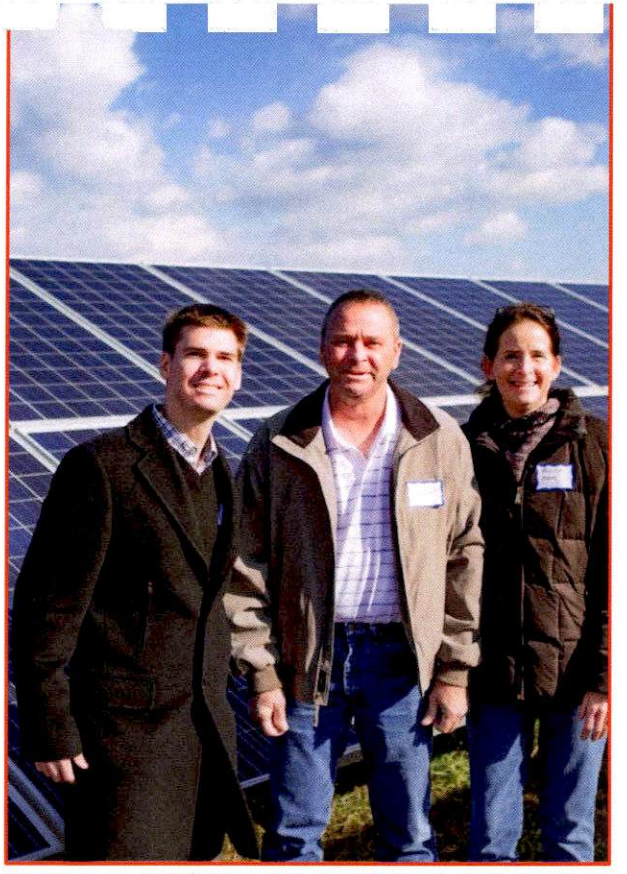
Who We Are

OneEnergy Renewables, founded in 2009, is a national solar energy developer with deep roots in Maryland.

OneEnergy projects include:

- 4.3 MW Cambridge Solar, serving Baltimore National Aquarium
- 13 MW Wye Mills Solar, serving John Hopkins Medicine's East Baltimore Campus
- 8 MW Baker Point Solar, serving National Geographic and Capital One Center; first project in the state to exceed Maryland's standards for Pollinator Friendly Solar.

→ *6,800 homes powered with clean, green energy*
→ *Equivalent to planting 1.1 million seedlings*
→ *45,000 metric tons of avoided greenhouse gas emissions*



OneEnergy 's COO and Baker Point Solar's landowners

OneEnergy RENEWABLES

Solar Panels

Photovoltaic (PV) panels are made primarily of glass, aluminum and silicon (referred to as a crystalline solar cell)

PV panels are not considered hazardous to the environment and are nonflammable[1]

PV panels have a anti reflective coating that prevents glare and are designed absorb 98% of light, reflecting as little as 2% of sunlight – the same amount of reflection observed off still water

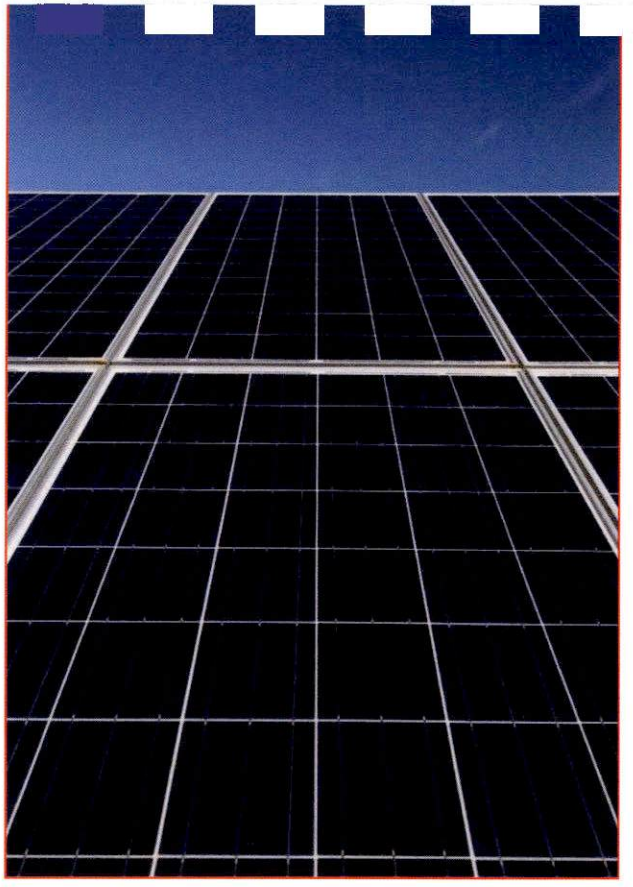
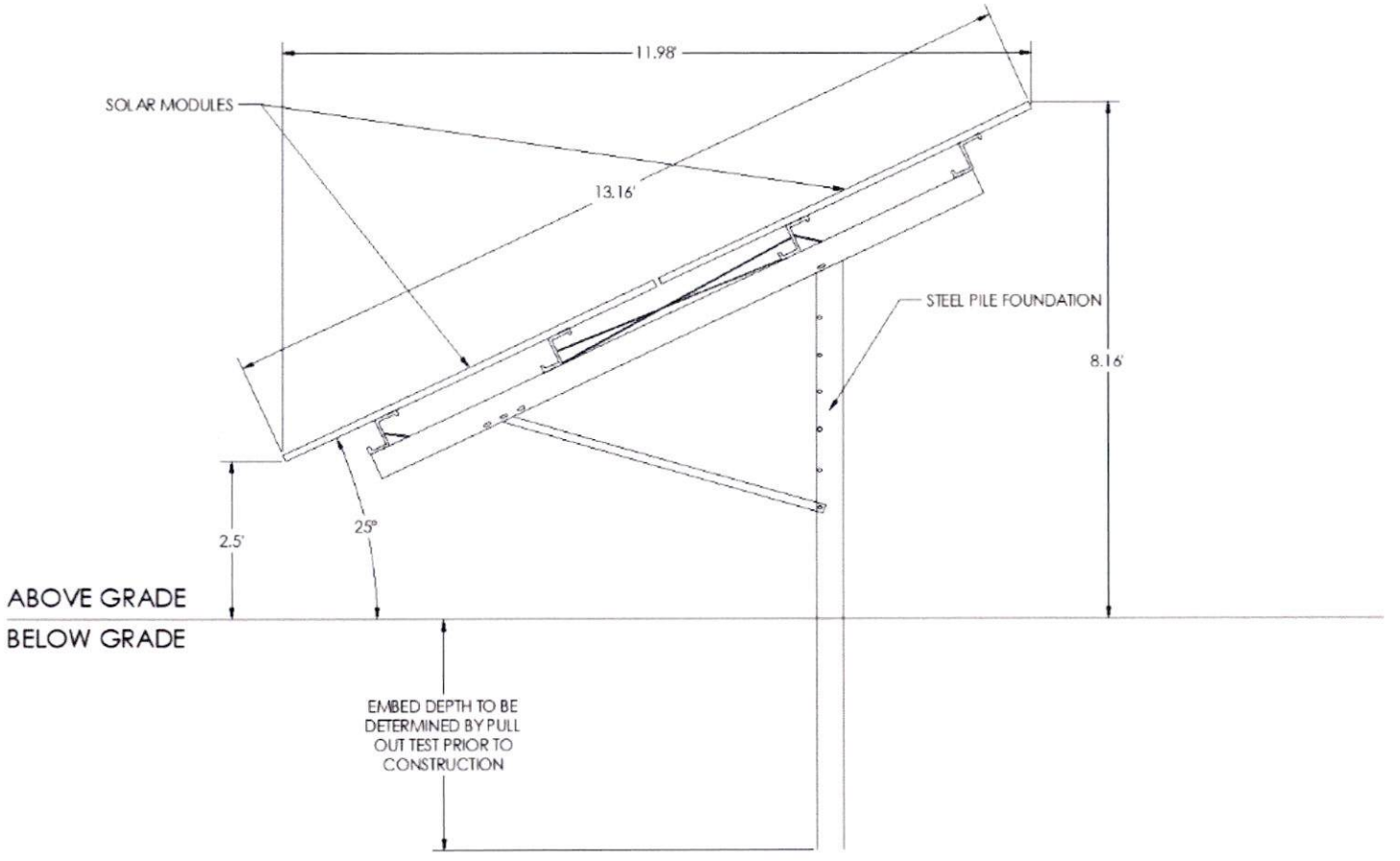


Image 1: multiple crystalline solar cells

NREL Report: The Safety of Photovoltaic
https://www.nrel.gov/docs/fy99osti/24618.pdf

OneEnergy RENEWABLES

Solar Panel Dimensions



OneEnergy RENEWABLES

Racking System

Solar panels will be mounted onto a fixed tilt racking system supported by a single post (galvanized steel or aluminum)

Racking systems can either be fixed, or on a single-axis tracking frame, which allows the panels to follow the sun from east to west throughout the day

The maximum height of the system is 8 feet for a fixed rack, or 10-12 feet for tracking systems



Image 2: Underside of a fixed tilt racking system

OneEnergy RENEWABLES

Racking System

Racking supports (posts) are placed between 10 and 30 feet apart

There is no disturbance to the soils in between each post

At the end of the useful life of the equipment, the piles will be removed, and the area reseeded with native grasses

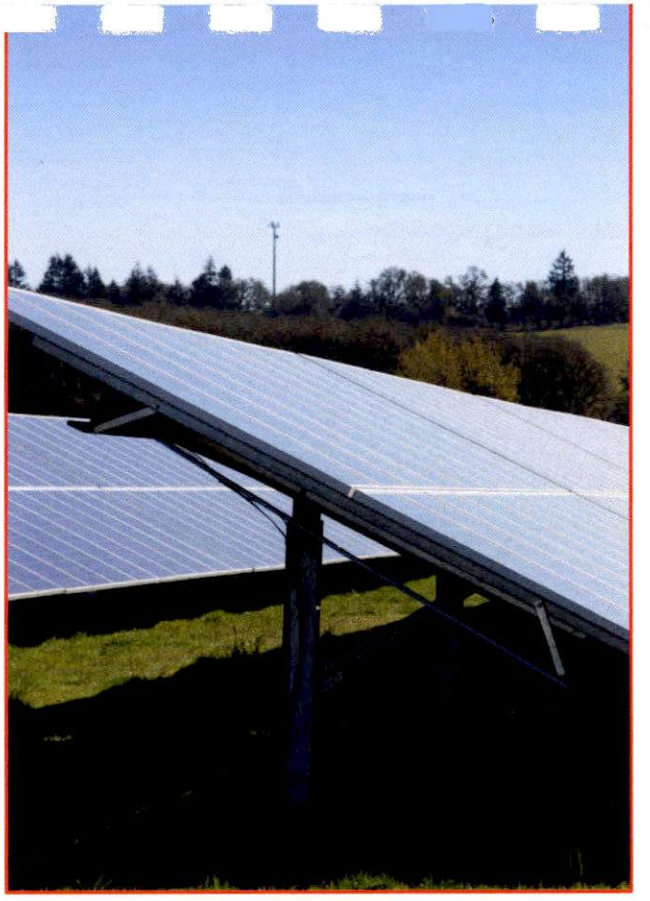


Image 3: Single axis tracking system

OneEnergy RENEWABLES

Inverters and Transformers

Inverters convert solar energy generated into a form of electricity that can be used on the electrical grid

Transformers increase the voltage to that of the utility's electrical lines

Metering and monitoring equipment are kept in a locked cabinet on a secure cement pad located a significant distance from any public access points

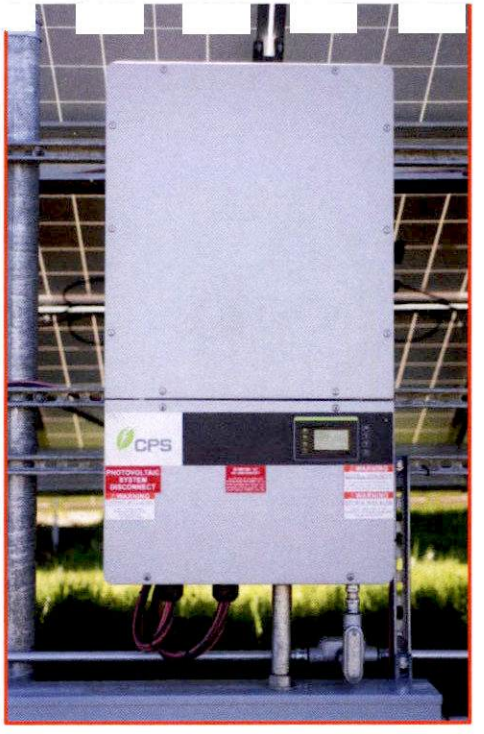


Image 4: String-type inverter

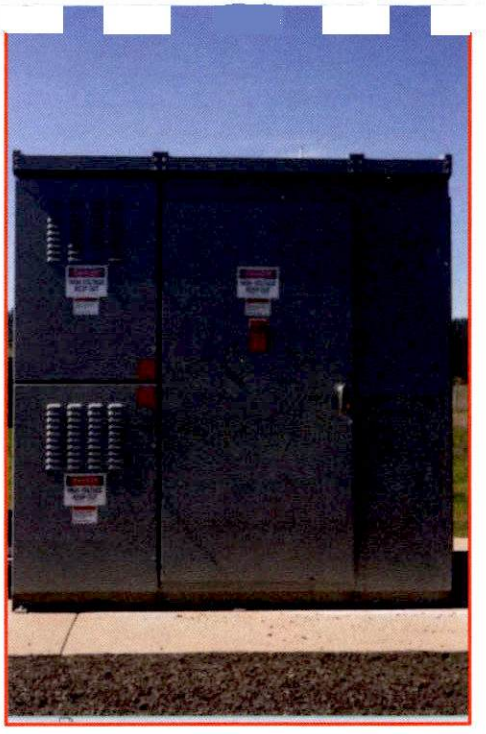


Image 5: Transformer Cabinet

OneEnergy RENEWABLES

Interconnection Infrastructure

Solar panel rows are connected via an underground trench to the nearest utility pole with minimal upgrades to existing equipment

The energy generated by the solar farm is distributed away from the project site and increases reliability in the nearby areas

No substation or large, transmission-type utility line construction is required

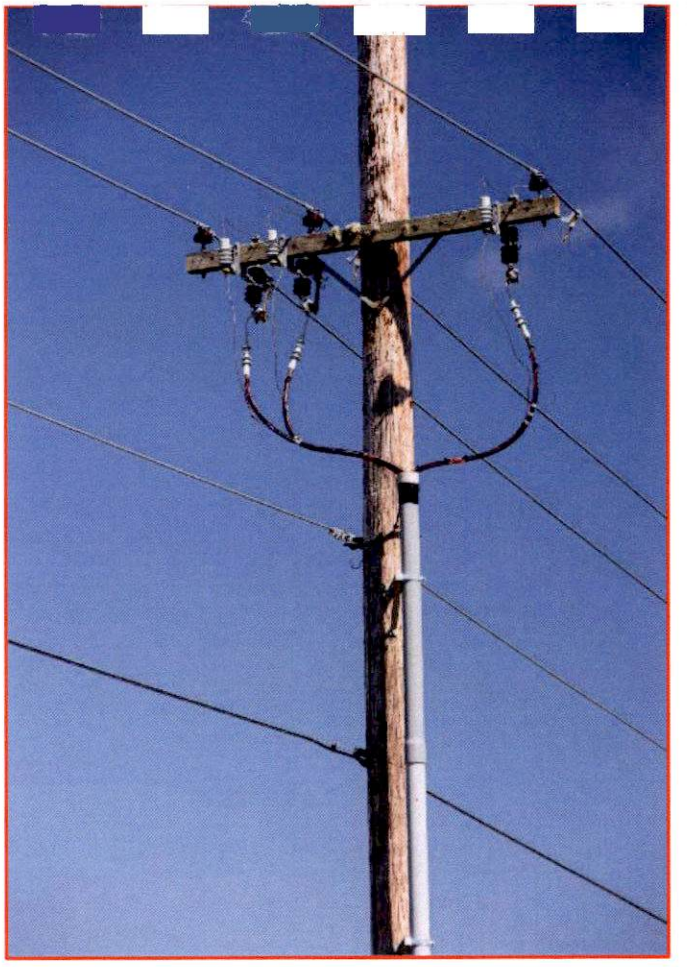


Image 6: Line tap type interconnection

OneEnergy RENEWABLES

Construction

Construction of a solar project typically occurs over 2-3 months, with the majority of the activity in the first four weeks

First, main access roads are graveled and erosion and sediment control best practices are installed.

Then minimal grading occurs and the area is reseeded with a pollinator-friendly grass mixture prior to panel installation.

Panels are then delivered on flat-bed trucks and stored in a designated laydown area. Truck traffic will be minimal after these deliveries

Construction activities only occur during regular day time hours as specified and pre-approved by the County

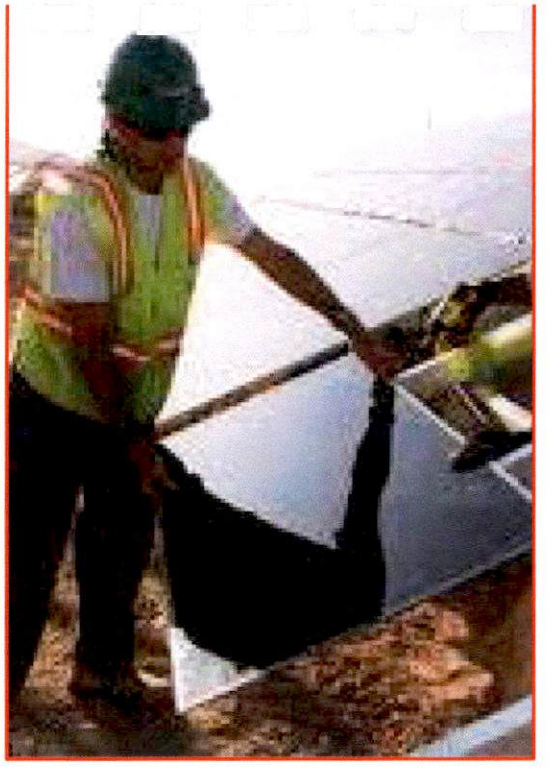


Image 7: Solar panel mounting to the racking system

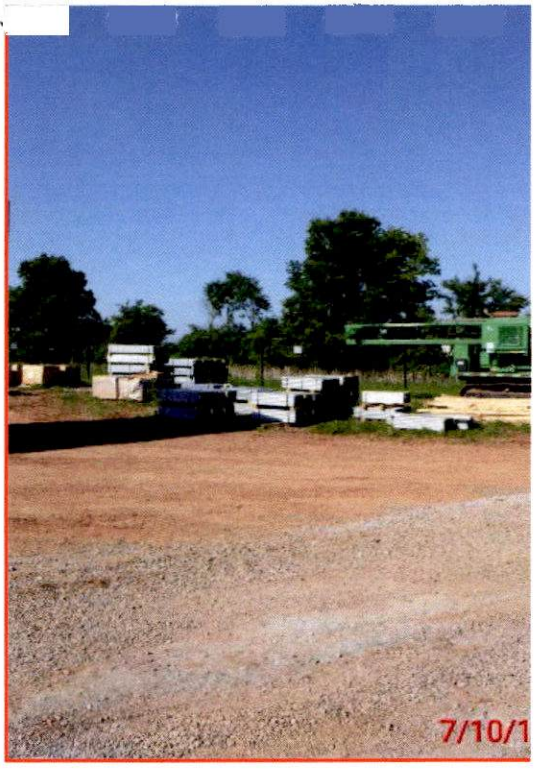


Image 8: Panel and racking parts staging

OneEnergy RENEWABLES

Construction

Piles are driven or screwed into the ground by a pile-driving machine to a depth of approximately 6 to 8 feet

The racking system is assembled on the piles and the panels are mounted

Electrical cables are installed and safely enclosed in trays underneath the panels to connect the solar cells to the inverters

Underground electrical conduit connects the inverters to the utility's electricity line via a small diameter, enclosed trench, which is ultimately covered and reseeded



Image 9: Pile-driver

OneEnergy RENEWABLES

Operation

After the project begins, the only onsite activities are a once-yearly routine maintenance check of equipment

The site is also mowed two to three times per season to control for invasives

At the of the equipment's useful life (approximately 30 years), the owner will remove all equipment and restore the site to its pre-existing conditions by simply pulling up the piles and limited electrical runs

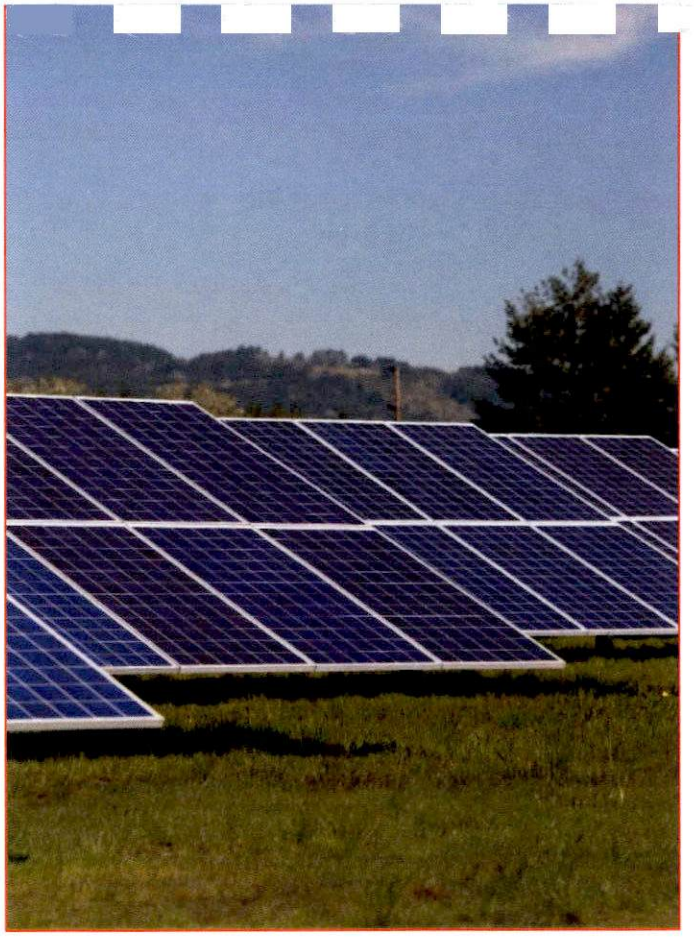


Image 10: Completed fixed-tilt solar system

OneEnergy RENEWABLES

Safety

OneEnergy works with local fire and police departments to maintain a secure facility.

A chain link or equivalent fence will protect residents from unauthorized access.

In the unlikely case of unauthorized access, PV panels are fully enclosed and electrical wiring is secured.

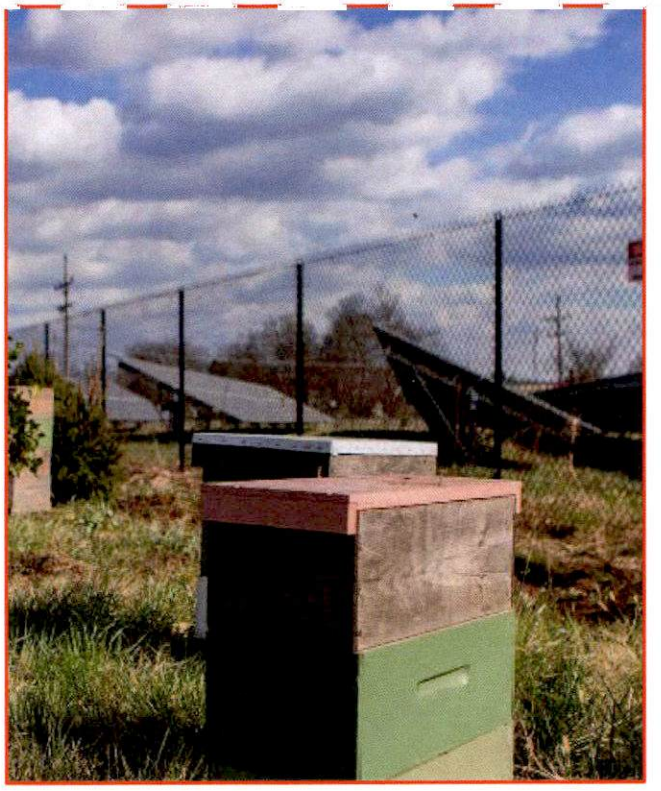


Image 11: Fencing (with beehives in foreground)

OneEnergy RENEWABLES

Vegetative Design

OneEnergy works with regulating agencies to screen the facility from roads and adjacent residential uses to the extend possible. A detailed landscape plan is approved prior to construction

Typically, borders consist of a mixture of deciduous and evergreen trees interspersed with shrubs and flowering plants.

Permanent vegetation is planted as early as possible and timed with when there is the most probability of establishment (usually May-June for evergreens and shade trees)

Water trucks are used in the first year ensure the vegetation succeeds

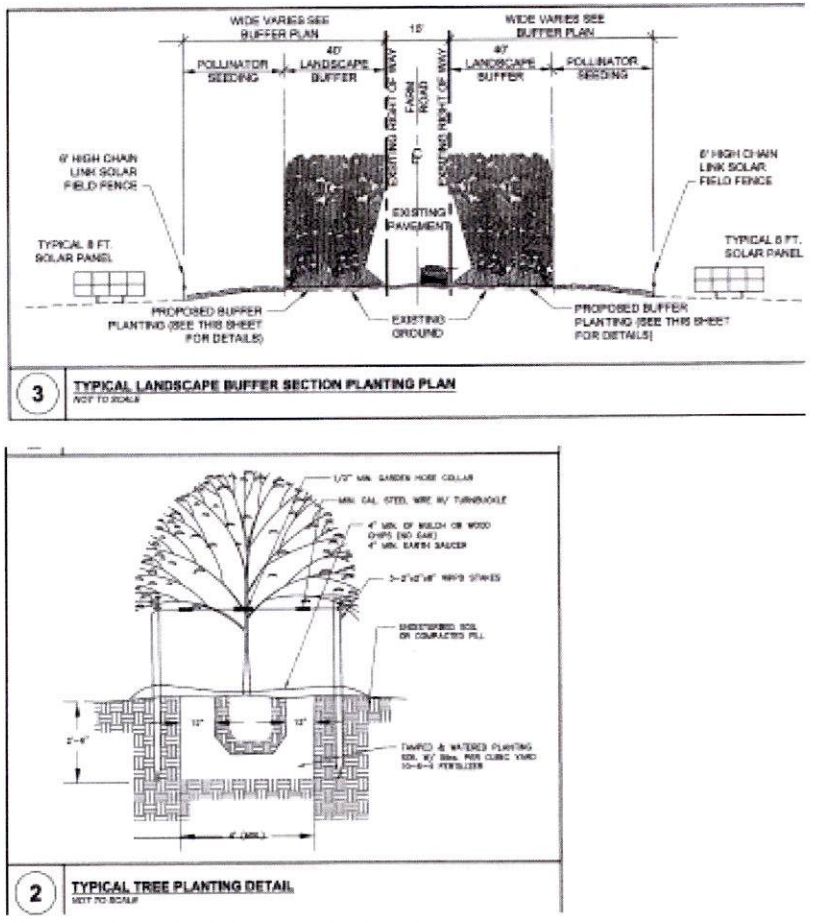


Image 12: Vegetation drawings

OneEnergy RENEWABLES

Solar Honey

OneEnergy developed and supported Maryland's first operating solar facility that is co-located with both pollinator habitat and apiaries. The design of this site exceeds state standards for pollinator friendly solar.

OneEnergy's Baker Point project hosts 30 honey bee apiaries, (managed by Editor in Chief of the American Bee Journal) and will produce SolarHoney™



Image 12: Solar Honey produced by Bolton Bees

OneEnergy RENEWABLES

THANK YOU.



OneEnergy
RENEWABLES

FORGESOLAR GLARE ANALYSIS

Project: **OneEnergy Sassafras MD**
Site configuration: **BERG-Recommended**
Analysis conducted by Stephen Barrett (steve@barrettenergygroup.com) at 13:40 on 21 Mar, 2018.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
Flight path(s)	N/A	No flight paths analyzed
ATCT(s)	N/A	No ATCT receptors designated

Default glare analysis and observer eye characteristics are as follows:

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at https://www.federalregister.gov/d/2013-24729

PETITIONER'S EXHIBIT 6

SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m^2
Time interval: 1 min
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 m
Eye focal length: 0.017 m
Sun subtended angle: 9.3 mrad
Site Config ID: 16597.2536



PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Rated power: -
Panel material: Light textured glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.719055	-76.677084	877.50	7.00	884.50
2	39.719055	-76.675110	877.74	7.00	884.74
3	39.716249	-76.675153	856.24	7.00	863.24
4	39.716282	-76.676870	852.22	7.00	859.22
5	39.716876	-76.677385	860.37	7.00	867.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	39.714475	-76.672817	832.40	6.00
OP 2	2	39.715432	-76.675155	861.24	6.00
OP 3	3	39.715515	-76.678439	852.14	6.00
OP 4	4	39.721102	-76.675735	900.75	6.00
OP 5	5	39.721085	-76.671830	858.08	6.00
OP 6	6	39.718378	-76.672623	861.19	12.00
OP 7	7	39.720194	-76.673353	869.12	12.00
OP 8	8	39.720343	-76.674168	885.55	12.00
OP 9	9	39.720392	-76.674962	900.07	12.00
OP 10	10	39.716753	-76.680057	843.24	12.00
OP 11	11	39.716324	-76.680787	840.18	12.00
OP 12	12	39.715317	-76.679360	874.10	12.00

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
PV array 1	SA tracking	SA tracking	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0

Results for: PV array 1

Receptor	Green Glare (min)	Yellow Glare (min)
OP 1	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
OP 5	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values may differ.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

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The Honorable John Beverungen
Administrative Law Judge
Baltimore County
Jefferson Building, Suite 103
105 West Chesapeake Avenue
Towson, Maryland 21204

March 28, 2018

Dear Judge Beverungen:

The Greater Baltimore Sierra Club is dedicated to protecting the Baltimore region's natural and wildlife resources, monitoring legislation, sponsoring outings, and educating the public about pressing environmental issues.

We are writing you to express our support for Maryland's Community Solar Pilot Program and to urge Baltimore County to play a leading role in implementing community solar projects.

We respectfully urge you to approve community solar projects proposed in Baltimore County that comply with county regulations for ground-mounted solar enacted in 2017 (Bill No. 37-17).

Baltimore County underwent an extensive public dialogue in 2017 to determine appropriate standards for ground-mounted solar. Policymakers took into consideration the views of citizens and organizations across the county in a public forum. The result of this lengthy public discussion was Bill No. 37-17, which the County Council and County Executive enacted into law.

Nearly half of all Americans currently cannot access the benefits of solar energy, according to the National Renewable Energy Laboratory. That is why Maryland created the Pilot Program - a new way for residents to access clean energy without having to put solar panels on rooftops. Best of all, it gives them a chance to save money on their electric bills.

The projects you will consider March 30th are expected to avoid nearly 200,000 tons of carbon pollution, the equivalent of avoiding more than 480 million gas-miles driven by cars. They will also provide participating landowners in Baltimore County a source of new revenue to help ensure their farms remain farms.

The Sierra Club's mission statement includes the commitment to, *"practice and promote the responsible use of the earth's ecosystems and resources."* Community solar projects in Baltimore County bring us one step closer to fulfilling this mission.

Please approve community solar projects that comply with county regulations.

Thank you for your consideration.

Very truly yours, Deborah Kleinmann

Deborah Kleinmann, Chair of GBG Sierra Club

PETITIONER'S EXHIBIT 7

MATTHEW DURETTE, PE

2003 Western Avenue, Suite 225 Seattle, WA 98121

Qualification Summary

Professional Energy Engineer and Project Developer specializing in large solar project development, design, and integration.

Work Experience

Manager, Project Development ~ *OneEnergy Renewables* ~ January 2015 – Present

Engineering lead and Project Developer for the Seattle based, utility-scale, solar energy company. OneEnergy's development focus spans from greenfield to construction phases with up to 2 GWac capacity in a broad range of domestic markets. Specializing in photovoltaic (PV) system design and integration, I bring more than 8 years of experience to my role leading design through for concept, permits, and utility interconnection. Projects are ground mounted and consist of fixed tilt and single-axis tracking PV arrays from 2-80 MWac each in size. *Responsibilities include:*

- Establish company strategy for preliminary design approach and optimization
- Track and forecast industry design trends, select major equipment
- Manage an engineering task queue, with evolving priorities, across the portfolio
- Hire, manage and train an Associate Engineer and intern
- Self-perform generation of the site plan, electrical, and detail drawings
- Manage external Civil and Electrical engineering consultants to support internal efforts
- Oversee, standardize, and execute energy production modeling using PVsyst software
- Serve as key team resource for engineering support of new site selection and permit applications
- Lead technical response for utility interconnection process across all RTO/ISOs and utilities in portfolio
- Develop engineering standards, templates, and tools
- Collaborate with EPC, co-developer, and financing partner technical staff as required
- As a member of the ERCOT regional development team I also contributed to generalist assignments including, but not limited to: new site due diligence, land owner outreach, on-site visits, permit development, and regional development strategy

Project Development Engineer ~ *AMERESCO* ~ May 2009 – January 2015

Solar PV Project Responsibilities:

- Conduct site assessment to evaluate solar resource and project feasibility
- Select system components and architecture to minimize the levelized cost of energy
- Model system energy production
- Manage structural, geotechnical or environmental consultants
- Draft drawing sets in compliance with NEC and local building codes
- Facilitate utility, DEP, and customer approvals and permits
- Provide on-site construction supervision assistance
- Orchestrate project commissioning, startup, and performance testing
- Coordinate with the development team to standardize proposed designs
- Collaborate with the financing entity's technical advisors
- Assist operation and maintenance group to diagnose and execute repairs as required

Energy Efficiency Project Responsibilities:

- Perform all tasks necessary to complete ESCO project M&V Reports
- Utility bill analysis
- Energy audits, savings calculations, grant applications and project proposals

Project Experience: Over 9MW of roof mounted, ground mounted, and carport Solar PV installations now in operation. Several projects are highlighted below.

- City of Lowell – Served as lead engineer in all phases of a city wide solar feasibility study which led to the construction of 348 kW of PV mounted on 4 public schools and 1 historic city auditorium. This PPA project was awarded 2010 renewable project of the year by the Massachusetts AEE.

PETITIONER'S EXHIBIT 8

- Massport Logan Airport – Assisted with development, design, and commissioning of 370 kW of PV mounted on three airport terminal rooftops. Meeting the technical and logistical demands of a major airport proved essential to the success of this PPA project.
- Town of Acton – This 1,596 kW ground mounted PV plant was the first of three for AMERESCO mounted on a closed landfill. A mounting design was optimized to avoid penetrating the landfill cap, minimize required ballast and grading, and maximize PV system efficiency. Collaboration with Electrical, Geotechnical, and Environmental consultants was necessary to plan for the DEP post-closure use permit and medium voltage utility interconnection.

Lead Technician ~ *Atlas Pyrovision Productions* ~ 2003 – 2011

Licensed onsite crew leader for the execution of commercial firework and special effects displays. Responsibilities include spectator and crew safety, management of field labor and schedule, compliance with regulation, aesthetic quality, customer satisfaction and transportation of hazardous materials.

Education

University of Massachusetts Lowell 2009

Bachelor of Science in Mechanical Engineering with Cum Laude honors

Certifications

Professional Engineer in Washington State, Mechanical – December 2015

NCEES License #53328

NABCEP Certified Solar PV Installer – October 2011 (Expired)

NABCEP License #092411-39

Additional Skills Summary

- Intimate knowledge of energy production forecasting using PVsyst and other software models
- Ample AutoCAD experience drafting plan sets from development to construction phases
- Proficient in Microsoft Word, Excel, Outlook, Project and PowerPoint and similar Google docs
- Talented at creating advanced spreadsheet calculation tools
- Experienced navigating a complex mapping database in Google Earth
- Skilled with use solar resource assessment and project commissioning tools
- Relentless attention to detail
- Well-liked by coworkers, easygoing
- Broad perspective of the project life cycle enhanced by experience from development all the way to O&M

Miscellaneous Experience and Interests

- Pi Tau Sigma Mechanical Engineering honor society
- UML Solar Energy Club
- Commercial driver's license, Fork truck operator, and 3D Rapid Prototyping.
- Some personal interests include passive solar design, backcountry skiing and mountain biking.
- Very familiar with Massachusetts, northern Vermont, Washington state and Colorado areas.

John A. Douglas, PLA

Daft, McCune, & Walker Inc.
Phone: 410-296-3333 / Email: jdouglas@dmw.com

Summary

Licensed professional landscape architect with ten years of site design, planning, drafting, graphic production, and project management experience in the public and private sectors of commercial, industrial, institutional, retail, residential, recreational, and transportation development.

Experience

DAFT McCUNE WALKER INC - Towson, MD *Aug. 2015 – Present*

- Responsibilities include: site analysis and feasibility studies, site and landscape planning and design; plan graphics and custom detail design and drafting; grading and SWM design (LID/BMPs); public plan preparation for approval and permitting; digital and hand illustrative graphics; plant lists and schedule conception; technical, report, and proposal writing; construction document coordination, production, and distribution; contractor correspondence and bid package production/management; client and in-house presentations; natural resources analysis and delineation; cost estimates; business development
- Project sectors include: retail, commercial, energy (solar), institutional, mixed-use, residential, and parks/recreation in Baltimore, Howard, and Frederick Counties and Baltimore City.
- Over 15 schematic and final landscape plans approved by Baltimore County Development Plans Review

JACOBS ENGINEERING - Arlington, VA and Pyeongtaek, South Korea *2008 – 2015*

- Responsibilities included: site and landscape design; master planning; program development; construction detail design and drafting; report writing; construction document production; reforestation design; cost estimates; feasibility studies; illustrative graphics; charrettes and presentations; international travel
- Spent one year living/working in South Korea planning and programming a park and trail network for a US military base, and preparing estimates and analysis for design and construction funding

Skills and Certifications

- Received Professional Landscape Architecture license in Maryland March 2017 (MD License #3941)
- Excellent written, oral, and graphic communication skills
- Proficient in 2016 versions of AutoCAD, Microstation, Adobe CC suite, ESRI ArcGIS, and Microsoft Office
- Capable in conventional hand sketching, rendering, analysis, and lettering techniques, as well as with 3D computer modeling programs including Civil3D and SketchUp

Education

UNIVERSITY OF MARYLAND AT COLLEGE PARK, College Park, MD *2003 – 2007*

- Graduated in four years May 2007 with accredited Bachelor of Landscape Architecture degree
- Volunteered in multiple fundraising, exhibition, and social events including LABash UMD 2006
- Teacher's assistant for a LARC160 class and was responsible for weekly instruction/grading of 20 students
- Worked as an intern for the office of Facilities Planning summer 2007 and participated in a campus-wide tree inventory and assessment for certification as an arboretum

Mentorship and Volunteer Work

Volunteers with various programs including the Urban Land Institute, the First Tee Program of Baltimore City and Prince George's County, Rebuilding Together, and Habitats for Humanity. Mentored high school students interested in careers in the design/development/construction industries through the ACE (Architecture Construction and Engineering) Mentor Program of Washington, DC and Baltimore between 2008 and 2016.

PETITIONER'S EXHIBIT 9

KEVIN KAMENETZ
County Executive

ARNOLD JABLON
Deputy Administrative Officer
Director, Department of Permits, Approvals & Inspections

March 29, 2018

Daft McCune Walker (DMW)
Mr. Mitch Kellman
501 Fairmount Avenue
Towson, Maryland 21286
Phone: 410-296-3333

Subject: Sassafras Solar
Zoning Case # 2018-0194-X
632 Freeland Road,
Freeland, Maryland 21053

Dear Mr. Kellman:

This is in response to your request for review of the Schematic Landscape Plan dated March 15, 2018. It has been reviewed and there are a number of comments to address landscape screening design, locations, proposed fencing height with slats for additional screening, etc. Based on a recent meeting held on March 29, 2018 with the design team, it is anticipated that the comments will be addressed as part of the next Schematic Landscape Plan submission and can be approved, provided the Special Exception is granted.

Sincerely,

James Hermann, RLA.
Landscape Architect, Development Plans Review

cc:

PETITIONER'S EXHIBIT 11

MITCHELL J. KELLMAN

VICE PRESIDENT - DIRECTOR OF ZONING SERVICES

Education

Towson University, BA, Geography and Environmental Planning, Urban Planning

Towson University, Masters, Geography and Environmental Planning, Urban Planning

Professional Summary

Mr. Kellman has over 30 years of experience working in zoning, subdivision, and development regulations for the public and private sector; 15 of those years were with the Baltimore County Office of Planning and Zoning. His responsibilities included review, approval and signatory powers on behalf of the Director of Final Development Plans and Record Plats. He represented the Zoning Office on the County Development Review Committee, a body reviewing the procedural compliance of all development submissions. Review of petitions and site plans filed for zoning hearing approvals were within his authority. Additionally, he supervised county review staff, met with professionals and the public on development project matters, and made determinations regarding developments and their compliance with county regulations. In working for DMW, he has extensive experience in testifying before the Baltimore County Zoning Commissioner, Hearing Officer, Administrative Law Judges, and Board of Appeals. He also regularly represents the company at the Baltimore County Development Review Committee meetings. He is also a member of Baltimore County's Design Review Panel, which formulates design recommendations to the Planning staff and Administrative Law Judges, and the Landmarks Preservation Commission.

Partial List of Projects

Saint Michael's Roman Catholic Church, Howard County, MD

Hunt Valley Towne Centre, Baltimore County, MD

Charlestown Retirement Community, Baltimore County, MD

Goucher College, Baltimore County, MD

Greenspring Quarry, Baltimore County, MD

Norris Acura West, Howard County, MD

Sheppard Pratt Health Systems (Elkridge Campus), Howard County, MD

Towson Town Center, Baltimore County, MD

Corridor 95 Business Park, Howard County, MD

Memberships and Associations

Baltimore County Landmarks Preservation Commission, 2014, 2015, 2016, 2017, 2018

Baltimore County Design Review Panel, 2012, 2013, 2014, 2015, 2016, 2017, 2018

Greater Towson Committee, Planning & Development Sub-Committee, 2012, 2013, 2014, 2015, 2016, 2017, 2018

Greater Towson Committee, Government Relations Sub-Committee Chair, 2013, 2014, 2015

Greater Towson Committee Board of Directors – 2014 (Secretary), 2015, 2016, 2017, 2018

Leadership Baltimore County, 2013

Leadership Baltimore County, Class Interviewer, Member, 2015

Professional Experience

Daft-McCune-Walker, Inc., Towson, MD: 2000-Present

Baltimore County Zoning Review Office, Towson, MD: 1985-2000

501 Fairmount Avenue, Suite 300, Towson, MD 21286 p: 410 296 3333 f: 410 296 4705 www.dmw.com

PETITIONER'S EXHIBIT 12



PETITIONER'S EXHIBIT 13

A


701 Freeland Rd
Freeland, Maryland
Google, Inc.
Street View - Sep 2013
Oakland Rd
Freeland Rd
Google
Image capture: Sep 2013 © 2018 Google United States Terms Report a problem


1001 Oakland Rd
Freeland, Maryland
Google, Inc.
Street View - Sep 2013
Oakland Rd
Google
Image capture: Sep 2013 © 2018 Google United States Terms Report a problem




709 Oakland Rd
Freeland, Maryland
Google, Inc.
Street View - Sep 2013
Oakland Rd
Google
Image capture: Sep 2013 © 2018 Google United States Terms Report a problem


709 Oakland Rd
Freeland, Maryland
Google, Inc.
Street View - Sep 2013
Oakland Rd
Google
Image capture: Sep 2013 © 2018 Google United States Terms Report a problem





632 Freeland Rd, Freeland, MD 21053

4310 Beckleysville Rd, Hampstead, MD

Add destination

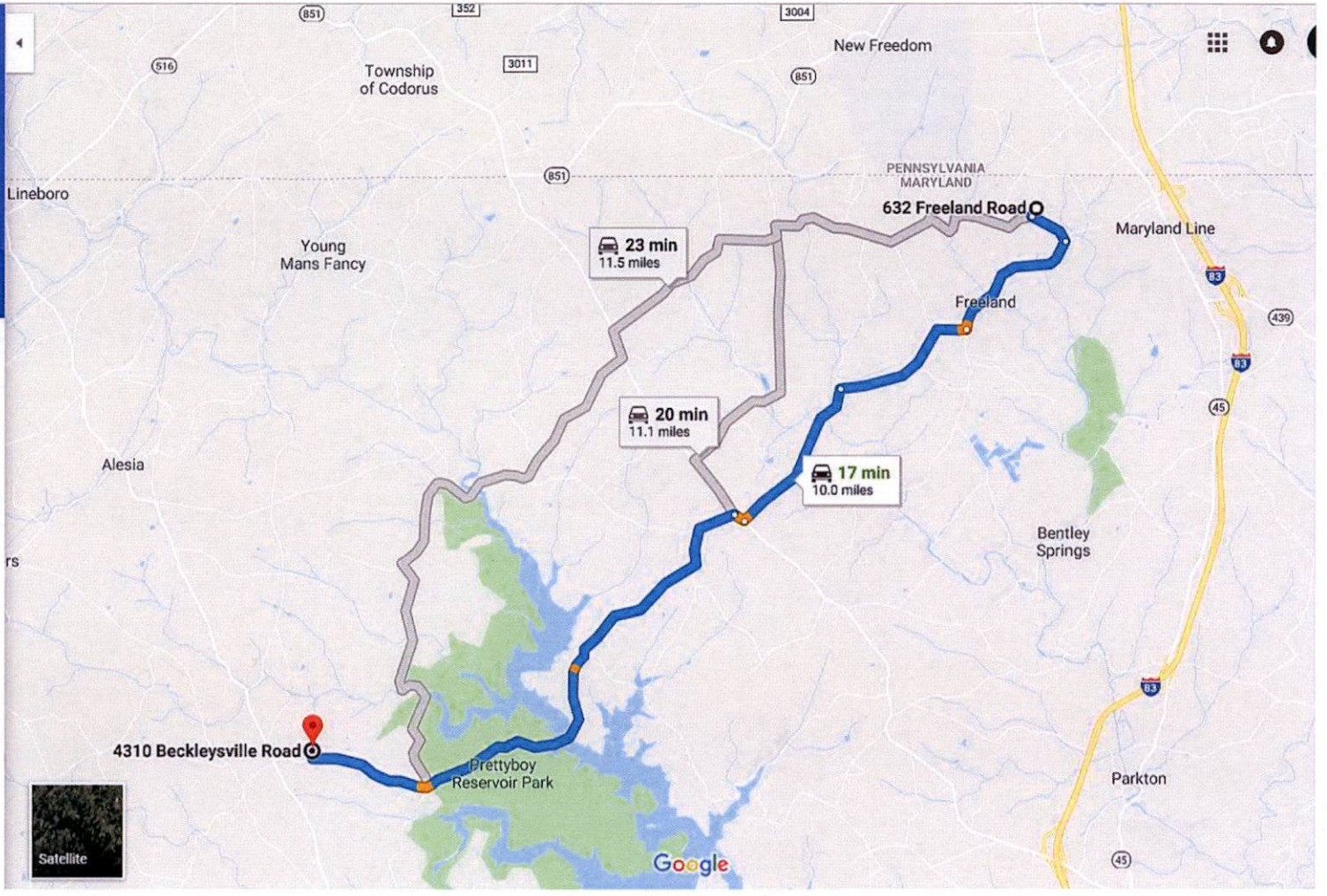
Leave now OPTIONS

Send directions to your phone

via Freeland Rd and Beckleysville Rd — 17 min
Fastest route, the usual traffic — 10.0 miles
DETAILS

via Beckleysville Rd — 20 min
11.1 miles

via Gunpowder Rd — 23 min
11.5 miles



PETITIONER'S EXHIBIT 15



632 Freeland Rd Solar Facility Case # 2018-0194-X

Light Green areas: Preserved agricultural lands.

Light Blue lines: Waterways on and near property; this is in the Loch Raven Reservoir watershed.

Prot. #1



Atkinson Property, 632 Freeland Rd, Freeland, MD 21053
Google Map

PROT. #2

Case # 2018-0194-X
632 Freeland Rd, Freeland, MD
Atkinson Property



(1) Above: Slope on location of proposed solar panel array creates water drainage onto Oakland Road, which feeds into spring located on opposite side of roadway.



Orwig Road, facing south, west of house # 21722.

(2) This north section of field would contain proposed solar panel arrays, visible from road.

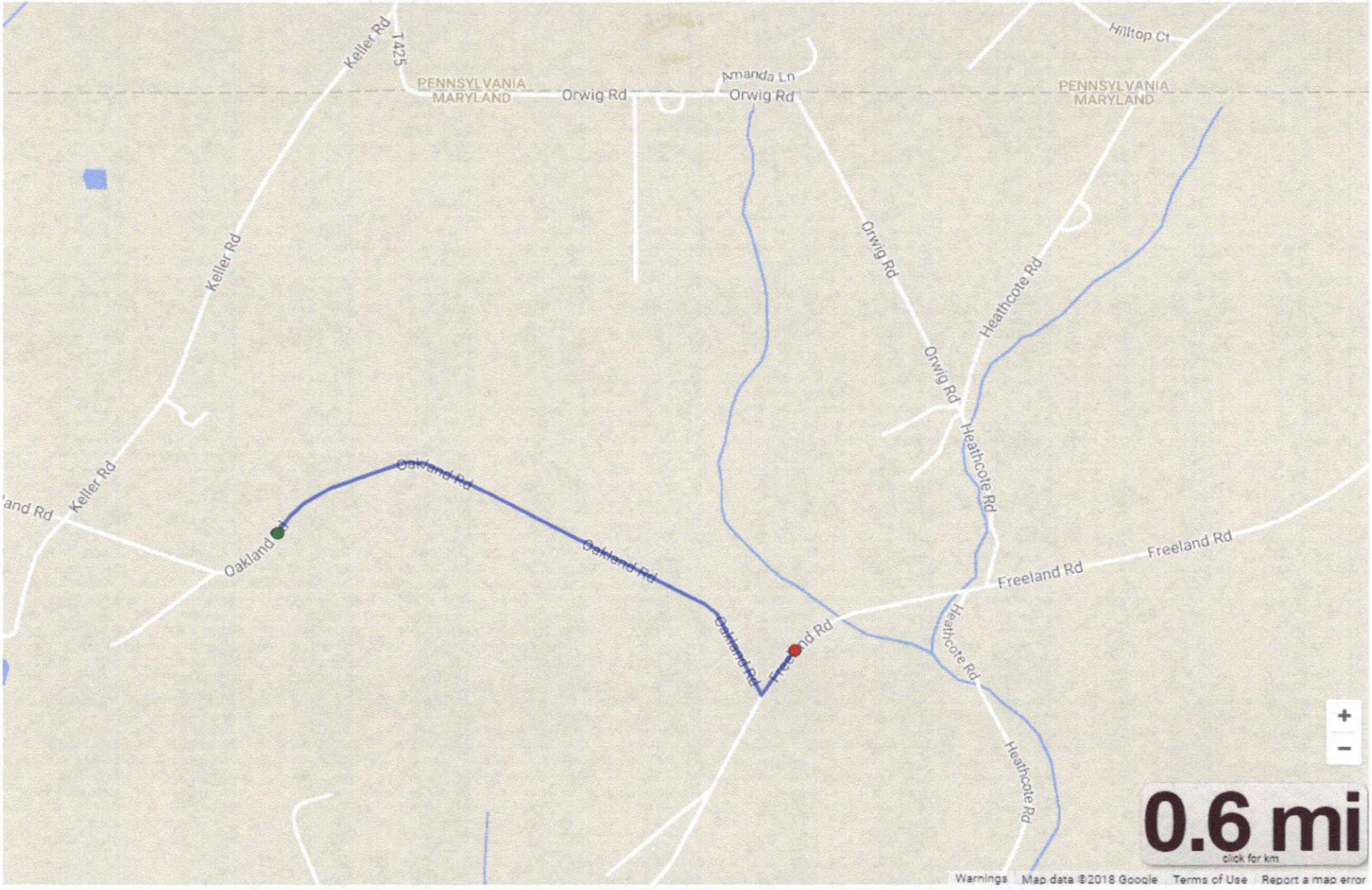
Photographs taken by Lynne Jones on March 29, 2018



(6) Above: View of property on Oakland Rd, near Freeland Rd, which are both scenic routes.



(7) View from Oakland Rd; proposed panel location on left and top of field.



ZAC Interoffice Correspondence, dated Feb. 12, 2018; Development Plans Review comments, #1-11:

1.-6. Landscaping buffers and minimal tree/vegetation removal.

7. Proposed chain link fence should not include barbed wire on top (8' H minimum)

8. Landscaping needed for this project to shield both Scenic Routes (Freeland and Oakland Roads) is .6 mile = 3,168 feet, not 1,000'.

9.-11. Additional landscaping needed for contiguous properties and access road which would increase total buffers needed.

Map: Goggle's www.onthegomap.com

Prot. #3

BALTIMORE COUNTY, MARYLAND

INTEROFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Department of Permits, Approvals
And Inspections

DATE: March 1, 2018

FROM: Vishnu Desai, Supervisor
Bureau of Development Plans Review

SUBJECT: Zoning Advisory Committee Meeting
For February 12, 2018
Item No. 2018-0194-X

The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.

If Special Exception is granted a landscape plan is required per the requirements of the Landscape Manual, Bill No. 37-17 and the CMDP. Specific landscape comments:

1. Freeland and Oakland Roads are Baltimore County Scenic Routes,
2. Perimeter landscape buffers are required,
3. Must minimize tree and vegetation removal,
4. Solar panels are considered a utility and should be designed and located to harmonize with the surroundings and to create the least visual impact. (See Comment # 8, 9, & 10 below),
5. Additional landscape buffers (including contour strip buffers) may be required to address existing topography changes, Scenic Views, Scenic Routes, etc. depending on a number of items including the subject properties topography,
6. More comments may be rendered during review of the landscape plan,
7. Proposed perimeter fence shall be black vinyl-coated chain-link fence,
8. Proposed landscape screening should begin at or near the 632 Freeland Road Residence located at the southwest corner of the subject property on Oakland Road and extend eastward along Oakland Road approximately 1,000 feet to assure screening of the solar array field from Oakland Road views.
9. Both 21712 and 21722 Orwig Road are adjacent properties that need to be reviewed for possible landscape screening to be designed and installed between their property and the proposed solar facility.
10. The proposed 20-foot access road may need to have a chicane or bends to assure screening of the solar array field from Oakland Road views if landscape screening does not.
11. Additional landscape and screening may be needed to address adjacent properties views when it relates to the proposed solar facility.

Developer/Owner to grant 10-foot wide Highway Widening along frontage of Oakland Road as well as Freeland Road, at no cost to the County.

* * * * *

VKD: cen
cc: file

APPEAL

Petition for Special Exception
(632 Freeland Road)
7th Election District – 3rd Councilmanic District
Legal Owners: Charles Gary Atkinson & Stephen Gordon Atkinson
Lessee: OneEnergy Development, LLC
Case No. 2018-0194-X

Petition for Special Exception (January 25, 2018)

Zoning Description of Property (January 31, 2018)

Certificate of Posting – March 10, 2018

Newspaper Advertisement – March 8, 2018 – The Jeffersonian

Notice of Zoning Hearing – February 23, 2018

People's Counsel Entry of Appearance – February 15, 2018

Zoning Advisory Committee Comments

Petitioner's Sign-in Sheets – 1 Sheet

Citizen's Sign-in Sheets- 1 Sheet

Petitioner(s) Exhibits –
1. Plan
2. Aerial – Schematic Plan
3. Letter from Charles Atkinson
4. Carroll CV
5. Solar Project Guideline
6. Glare Analysis
7. March 28, 2018 Letter from Sierra Club
8. Durette CV
9. Douglas CV
10. Schematic Landscape Plan
11. March 29, 2018 Letter from James Hermann, RLA
12. Kellman CV
13. 13 A-H Photos
14. Scenic View Exhibit
15. Driving Directions Freeland → Hampstead

Protestant(s) Exhibits –
1. Aerial Exhibits showing Waterways & Ag. Lands
2. Aerial w/Photos 1-7 of Atkinson Property
3. Exhibit re: Road Frontage on Oakland Rd.
4. Panoramic Photo of Site

Miscellaneous (Not Marked as Exhibits)

Administrative Law Judge Order and Letter (GRANTED with Conditions – April 3, 2018)

Appeal Notice, Letter & Receipt received from H. Barnes Mowell, Esq. – April 30, 2018

KEVIN KAMENETZ
County Executive

LAWRENCE M. STAHL
Managing Administrative Law Judge
JOHN E. BEVERUNGEN
Administrative Law Judge

May 1, 2018

RECEIVED
MAY 01 2018
BALTIMORE COUNTY
BOARD OF APPEALS

Adam Rosenblatt, Esq.
Venable, LLP
210 W. Pennsylvania Avenue, Suite 500
Towson, Maryland 21204

RE: **APPEAL TO BOARD OF APPEALS** – Petition for Special Exception
Case No. 2018-0194-X
Property: 632 Freeland Road

Dear Mr. Rosenblatt:

Please be advised that an appeal of the above-referenced case was filed in this Office on April 30, 2018. All materials relative to the case have been forwarded to the Baltimore County Board of Appeals ("Board").

If you are the person or party taking the appeal, you should notify other similarly interested parties or persons known to you of the appeal. If you are an attorney of record, it is your responsibility to notify your client.

If you have any questions concerning this matter, please do not hesitate to contact the Board at 410-887-3180.

Sincerely,

JOHN E. BEVERUNGEN
Administrative Law Judge
for Baltimore County

JEB/dlw

c: Baltimore County Board of Appeals
Peter Max Zimmerman, People's Counsel for Baltimore County
H. Barnes Mowell, Esq., H. Barnes Mowell, P.A., 16925 York Road, Monkton, MD 21111
Lynne Jones, 815 Stablers Church Rd., Baltimore, MD 21120
Kathleen Pieper, 4310 Beckleysville Road, Baltimore, MD 21074
Salvatore & Beverly Scavone, 20220 Middletown Road, Baltimore, MD 21053
George Harman, 5429 Weywood Dr., Reisterstown, MD 21136
Mike Pierce, 7448 Bradshaw Road, Kingsville, MD 21087

PETITION FOR ZONING HEARING(S)

To be filed with the Department of Permits, Approvals and Inspections

To the Office of Administrative Law of Baltimore County for the property located at:

Address 632 Freeland Road, Freeland, MD 21053 **which is presently zoned** RC 2

Deed References: 26823/303 10 Digit Tax Account # 0 7 0 1 0 8 9 0 6 0

Property Owner(s) Printed Name(s) Charles Gary Atkinson and Stephen Gordon Atkinson

(SELECT THE HEARING(S) BY MARKING X AT THE APPROPRIATE SELECTION AND PRINT OR TYPE THE PETITION REQUEST)

The undersigned legal owner(s) of the property situate in Baltimore County and which is described in the description and plan attached hereto and made a part hereof, hereby petition for:

1.____ **a Special Hearing** under Section 500.7 of the Zoning Regulations of Baltimore County, to determine whether or not the Zoning Commissioner should approve

2.__X__ **a Special Exception** under the Zoning Regulations of Baltimore County to use the herein described property for SEE ATTACHED

3.____ **a Variance** from Section(s)

of the zoning regulations of Baltimore County, to the zoning law of Baltimore County, for the following reasons: **(Indicate below your hardship or practical difficulty or indicate below "TO BE PRESENTED AT HEARING". If you need additional space, you may add an attachment to this petition)**

TO BE PRESENTED AT HEARING

Property is to be posted and advertised as prescribed by the zoning regulations.

I, or we, agree to pay expenses of above petition(s), advertising, posting, etc. and further agree to and are to be bounded by the zoning regulations and restrictions of Baltimore County adopted pursuant to the zoning law for Baltimore County.

Legal Owner(s) Affirmation: I / we do so solemnly declare and affirm, under the penalties of perjury, that I / We are the legal owner(s) of the property which is the subject of this / these Petition(s).

ORDER RECEIVED FOR FILING
Date 4/3/18
By AON

Contract Purchaser/Lessee:

SEE ATTACHED
Name- Type or Print

Signature

Mailing Address City State

Zip Code / Telephone # / Email Address

Legal Owners (Petitioners):

SEE ATTACHED / SEE ATTACHED
Name #1 – Type or Print Name #2 – Type or Print

Signature #1 / Signature # 2

632 Freeland Road Freeland MD
Mailing Address City State

21053 / / /
Zip Code Telephone # Email Address

Attorney for Petitioner:

Adam M. Rosenblatt, Esq.
Name- Type or Print

Signature

210 W. Pennsylvania Ave., Suite 500, Towson, MD
Mailing Address City State

21204 / (410) 494-6200 / arosenblatt@venable.com
Zip Code Telephone # Email Address

Representative to be contacted:

Adam M. Rosenblatt, Esq.
Name- Type or Print

Signature

210 W. Pennsylvania Ave., Suite 500, Towson, MD
Mailing Address City State

21204 / (410) 494-6200 / arosenblatt@venable.com
Zip Code Telephone # Email Address

CASE NUMBER 2018-0199-X **Filing Date** 1/25/18 **Do Not Schedule Dates:** _____ **Reviewer** JS

REV. 10/4/11

ATTACHMENT TO
PETITION FOR SPECIAL EXCEPTION

SPECIAL EXCEPTION

1. Petition for Special Exception, pursuant to Section 4E-102 of the Baltimore County Zoning Regulations, for a solar facility.

2. Also, for such further relief as the Administrative Law Judge may require.

ATTACHMENT TO PETITION FOR SPECIAL EXCEPTION

LEGAL OWNERS:

CHARLES GARY ATKINSON

STEPHEN GORDON ATKINSON

ATTACHMENT TO PETITION FOR SPECIAL EXCEPTION

LESSEE:

OneEnergy Development, LLC
2003 Western Avenue, Suite 225
Seattle, Washington 98121
(206) 922-7072

By: _____
Name: Travis Bryan
Title: Chief Operating Officer

DAFT McCUNE WALKER

Zoning Description

To Accompany

Special Exception Request

Baltimore County, Maryland

Commencing for the same from the intersection formed by the centerline of Freeland Road, with the centerline of Oakland Road; thence leaving said point and running with the center of said Oakland Road northwesterly approximately 1,904 feet, more or less; thence northeasterly 10 feet, more or less, to the point of beginning; thence leaving said point of beginning and running with the northern side of said Oakland Road the following two courses and distances and referring all courses of this description to the Maryland Coordinate System (NAD-83) (1) North 61 degrees 12 minutes 52 seconds West 69.31 feet; thence (2) North 62 degrees 28 minutes 19 seconds West 53.74 feet; thence (3) North 15 degrees 08 minutes 43 seconds East 84.89 feet; thence leaving said road, (4) North 90 degrees 00 minutes 00 seconds West 99.87 feet; thence (5) North 33 degrees 59 minutes 43 seconds West 46.47 feet; thence (6) North 90 degrees 00 minutes 00 seconds West 384.84 feet; thence (7) North 00 degrees 00 minutes 00 seconds East 470.78 feet; thence (8) North 27 degrees 29 minutes 55 seconds East 728.94 feet; thence (9) North 90 degrees 00 minutes 00 seconds East 473.75 feet; thence (10) South 00 degrees 00 minutes 00 seconds West 1,155.89 feet; thence (11) North 90 degrees 00 minutes 00 seconds West 199.75 feet; thence (13) South 05 degrees 33 minutes 49 seconds West 140.82 feet to the point of beginning; containing 824,547.05 square feet or 18.929 acres, more or less, as now described by Daft-McCune-Walker, Inc. in January 2018.

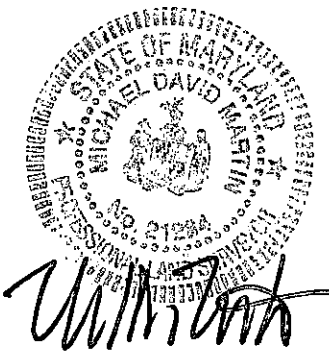
2018-0194-X

501 Fairmount Avenue, Suite 300, Towson, MD 21286 p: 410 296 3333 f: 410 296 4705 www.dmw.com

THIS DESCRIPTION HAS BEEN PREPARED FOR ZONING PURPOSES ONLY AND IS NOT TO BE USED FOR PROPERTY CONVEYANCE.

January 31, 2018

Project No. 16046 (L16046-1)



1.31.18

BALTIMORE COUNTY, MARYLAND
OFFICE OF BUDGET AND FINANCE
MISCELLANEOUS CASH RECEIPT

No 161192

Date: 1/25/18

Fund	Dept	Unit	Sub Unit	Rev Source/ Obj	Sub Rev/ Sub Obj	Dept Obj	BS Acct	Amount
001	806	0000		6150				$500.00

Total: $500.00

Rec From: ATKINSON

For: 2018-0194-X

DISTRIBUTION
WHITE - CASHIER PINK - AGENCY YELLOW - CUSTOMER GOLD - ACCOUNTING
PLEASE PRESS HARD!!!!

CASHIER'S VALIDATION

PAID RECEIPT
BUSINESS ACTUAL TIME
2/02/2018 2/01/2018 10:39:58
REG NUM WALKIN JEE
RECEIPT # 0173010 2/01/2018
Dept 806 ZONING VERIFICATION
CR NO. 161192
Exempt Tot $500.00
$500.00 CK $.00 CA
Baltimore County, Maryland

BALTIMORE COUNTY, MARYLAND
INTER-OFFICE MEMORANDUM

TO: Arnold Jablon
Deputy Administrative Officer and
Director of Permits, Approvals and Inspections

DATE: 3/27/2018

FROM: Andrea Van Arsdale
Director, Department of Planning

SUBJECT: **ZONING ADVISORY COMMITTEE COMMENTS**
Case Number: 18-194

INFORMATION:
Property Address: 632 Freeland Road
Petitioner: Charles Gary Atkinson, Stephen Gordon Atkinson
Zoning: RC 2
Requested Action: Special Exception

The Department of Planning has reviewed the petition for a special exception to use the property for a solar facility.

A site visit was conducted on February 15, 2018. The site is situated in proximity to, but not contiguous with, two substantial agricultural preservation easements.

The Department has no objection to granting the petitioned zoning relief conditioned upon the following firmly held condition:

- The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg.177). The CMDP further states "*designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit.*" (CMDP pg.175). The Master Plan 2020 confirms that the "*preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents.*" (MP2020 pg.99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg.177).

- Any landscape plan submitted for review and approval shall reflect the following Scenic Route requirements:
The Department will not support an unbroken planted screen along and adjacent to the Oakland and Freeland Road frontages. The Department recommends that any landscape screening be specific to the solar compound (compound) in its location. This would take the form of a mix of native deciduous, evergreen and flowering trees with understory shrubs situated in beds having a minimum width of 30' which would ring the compound. The landscape screening would flair out in a naturalistic way to engage the existing copse

of trees situated on the east of the compound and also extend a planted mass projecting from the southwest corner of the compound outwards to the edge of Oakland Road. If treated in this fashion, no further planting is required along the scenic routes thus preserving the existing expansive view for that time in the future such as the solar compound is removed.

The following conditions are offered in addition to the above:

- If approved, Petitioners shall submit to this Department at the time of building permit application the final fixed location and area of the facility by coordinate data so that an inventory may be kept.
- Lighting shall be limited to what is required for security purposes only and will be sited in such a way as to have minimal spillage onto neighboring properties.
- Signage shall be limited to that which is necessary for safety and security purposes.
- No deliveries or outdoor maintenance which may generate excessive noise may occur on-site between the hours of 6 P.M. through 6 A.M
- Pursuant to BCZR §502.1.A, petitioners shall demonstrate to the satisfaction of the Administrative Law Judge that the facility will not be detrimental to the adjacent residential properties as a result of glare emanating from the facility.

For further information concerning the matters stated herein, please contact Wally Lippincott at 410-887-3480.

Prepared by:

Lloyd T. Moxley

Deputy Director:

Jeff Mayhew

AVA/KS/LTM/

c: Wally Lippincott
James Hermann, R.L.A., Department of Permits, Approvals and Inspections
Adam M. Rosenblatt, Esquire
Office of the Administrative Hearings
People's Counsel for Baltimore County

TO: PATUXENT PUBLISHING COMPANY
Thursday, March 8, 2018 Issue - Jeffersonian

Please forward billing to:
Patricia Malone 410-494-6200
Venable, LLP
210 W. Pennsylvania Avenue, Ste. 500
Towson, MD 21204

NOTICE OF ZONING HEARING

The Administrative Law Judge of Baltimore County, by authority of the Zoning Act and Regulations of Baltimore County, will hold a public hearing in Towson, Maryland on the property identified herein as follows:

CASE NUMBER: 2018-0194-X
632 Freeland Road
NW corner of the intersection of Freeland and Oakland Roads
7th Election District – 3rd Councilmanic District
Legal Owners: Charles Gary Atkinson, Stephen Gordon Atkinson
Lessee: OneEnergy Development, LLC

Special Exception for a Solar Facility; and for such other and further relief as the Administrative Law Judge may require.

Hearing: Friday, March 30, 2018 at 1:30 p.m. in Room 205, Jefferson Building,
105 West Chesapeake Avenue, Towson 21204

Arnold Jablon
Director of Permits, Approvals and Inspections for Baltimore County

NOTES: (1) HEARINGS ARE HANDICAPPED ACCESSIBLE; FOR SPECIAL ACCOMODATIONS, PLEASE CONTACT THE ADMINISTRATIVE HEARINGS OFFICE AT 410-887-3868.
(2) FOR INFORMATION CONCERNING THE FILE AND/OR HEARING, CONTACT THE ZONING REVIEW OFFICE AT 410-887-3391.

Pollen Levels About To Soar In Maryland: Allergy Forecast

Forecasts predict pollen levels will skyrocket just as warm weather sweeps into Maryland, making allergy sufferers miserable.

By Deb Belt, Patch National Staff | Apr 11, 2018 1:09 pm ET

BALTIMORE, MD — Warm weather is moving into Maryland and will even make it feel like summer with a high around 81 degrees on Friday, which is a welcome relief from winter, but it will come at a cost for some. Pollen levels are expected to skyrocket in the region beginning Wednesday and continue through the weekend, so get ready for allergy symptoms and stock up on your go-to medicines and Kleenex.

The pollen outlook in Baltimore is expected to change from moderate to high from Wednesday through Sunday, according to the Pollen.comtracker. Very high pollen levels are predicted Friday and Saturday.

Trees are the main culprit to the pollen cloud and allergies, with the maple, elm and juniper trees wreaking the most havoc on people with allergies, according to Pollen.com. Grass pollen and and outdoor mold spore levels are relatively low, while breathing comfort is very good, Weather.com reports.

The worst times for allergies are typically dry, windy days. The current forecast shows a gusty day on Thursday with winds topping 20 mph, but little chance for rain until Sunday, according to the National Weather Service.

This week is the first time in 2018 the Baltimore area records very high pollen levels, says the Weather.com allergy tracker, with a count of 792 expected today. By comparison, last year's highest pollen count in Baltimore was 415 on April 11. It could be even worse, Atlanta is the country's pollen hot spot with a count of 5098 likely on Wednesday. (For more information on this and other news, subscribe to Patch to receive daily newsletters and breaking news alerts. If you have an iPhone, click here to get the free Patch iPhone app; download the free Patch Android app here.)

Such heavy pollen can be irritating, even uncomfortable, for all of us. But it's particularly troubling for people with allergies — which are abnormally sensitive or strong reactions by the immune system to a particular substance, like pollen. About 35 million Americans are sensitive to pollen, according to the National Institutes of Health.

The most common symptoms of such allergies include runny nose, post-nasal drip, sneezing, congestion, coughing and itchy or watery eyes. More rarely, they can cause headaches, loss of taste and smell, low productivity and poor concentration, fatigue, sleep disturbances and snoring.

While completely avoiding this level of pollen is impossible, Patient First medical centers of Maryland offers tips for dealing with heavy pollen, particularly for people with allergies:

- Stay indoors on dry, windy days. The best time to go outside is after a rain, which helps clear pollen from the air.
- Delegate lawn mowing, weed pulling and other gardening chores that stir up allergens.
- After spending time outside, take a shower to rinse pollen from your skin and hair and put on clean clothes.
- Wear a face mask if you do outside chores.
- Start taking over-the-counter antihistamines when high pollen counts are forecasted even before your symptoms start.
- Use air conditioning in your house and car.
- Wash your bedding in hot water.
- Vacuum and clean floors frequently.
- Use high efficiency air filters and change them frequently.
- Use mattress and pillow covers.

Patch editor Doug Gross contributed to this report.

https://patch.com/maryland/annapolis/pollen-levels-soar-maryland-allergy-forecast

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Pollen Producing Trees surrounding the proposed solar facility include:

Assorted Pines: White, Scotch, Spruce (Norway and Colorado Blue);
Oaks: Red and White;
Indigenous Nut Trees: Black Walnut, Hazelnut, Hickory, Chestnut;
Black Cherry
Cedar

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Danger: Solar Panels Can Be Hazardous to Your Health

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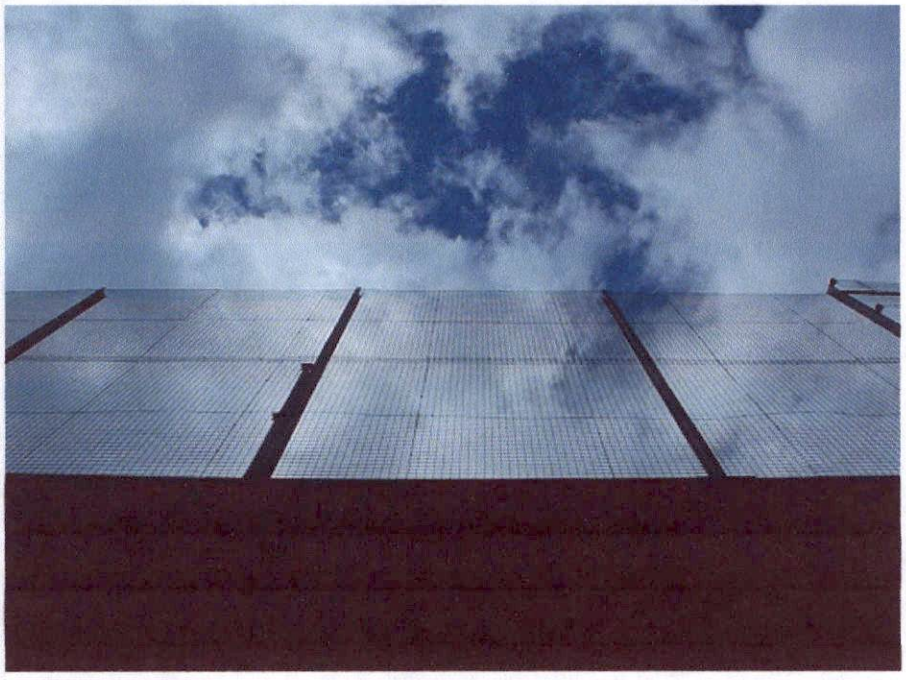
January 14th, 2009 by **Ariel Schwartz**



It's easy to think that solar panels can do no wrong— after all, they *will* help lead us out of our energy crisis, right? Unfortunately, these shining beacons of hope produce toxic e-waste **just like** cell phones, TVs, and computers. A report released today by the **Silicon Valley Toxics Coalition** admonishes the solar industry to face its e-waste problem head on or risk "repeating the **mistakes** made by the microelectronics industry."

The SVTC warns that solar panel production creates many of the same toxic byproducts as those found in semiconductor production, including silicon tetrachloride, dusts, and greenhouse gases like sulfur hexafluoride. These byproducts aren't anything to scoff at— silicon tetrachloride, for example, makes land unsuitable for growing crops. And for each ton of polysilicon produced, **four tons** of silicon tetrachloride are generated.

There are steps that the solar industry can take to minimize toxic risks, however. The SVTC recommends that manufacturers test materials for toxicity before using them. Additionally, the group asks manufacturers to ramp up takeback programs.

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But getting solar panel manufacturers to take back their products after 25 years (the average lifespan of silicon-based panels) could prove difficult, especially since other electronics manufacturers that make products with much shorter lifespans can't get their takeback programs off the ground.

The only way manufacturers will aggressively pursue recycling and anti-toxicity campaigns is if we stop giving the solar industry a free pass and start demanding accountability.

*Photo Credit: CC-licensed by flickr user **David Boyle***

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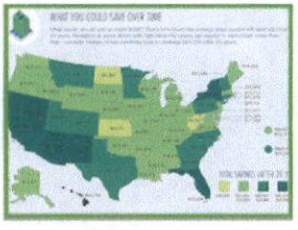
How much money can a solar roof save you in Maryland?



Profit from your roof space: find local deals on solar in your area, eliminate your power bill.

21218

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Tags: **e-waste**, **solar industry**, **takeback**

About the Author



Ariel Schwartz was formerly the editor of CleanTechnica and is a senior editor at Co.Exist. She has contributed to SF Weekly, Popular Science, Inhabitat, Greenbiz, NBC Bay Area, GOOD Magazine, and more. A graduate of Vassar College, she has previously worked in publishing, organic farming, documentary film, and newspaper journalism. Her interests include permaculture, hiking, skiing, music, relocalization, and cob (the building material). She currently resides in San Francisco, CA.

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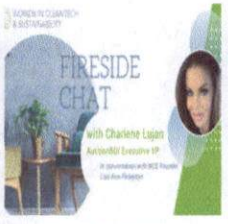

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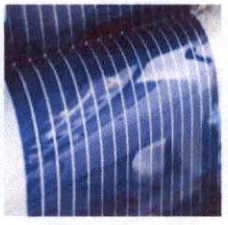

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Toxic Chemicals in Solar Panels

By David H. Nguyen, Ph.D.; Updated April 30, 2018



Solar panels may be an appealing choice for clean energy, but they harbor their share of toxic chemicals. The toxic chemicals are a problem at the beginning of a solar panel's life -- during its construction -- and at the end of its life when it is disposed of. These two intervals are times when the toxic chemicals can enter into the environment.

TL;DR (Too Long; Didn't Read)

During manufacture and after the disposal of solar panels, they release hazardous chemicals including cadmium compounds, silicon tetrachloride, hexafluoroethane and lead.

The toxic chemicals in solar panels include cadmium telluride, copper indium selenide, cadmium gallium (di)selenide, copper indium gallium (di)selenide, hexafluoroethane, lead, and polyvinyl fluoride. Additionally, silicon tetrachloride, a byproduct of producing crystalline silicon, is highly toxic.

Cadmium Telluride

Cadmium telluride (CT) is a highly toxic chemical that is part of solar panels. In the journal, "Progress in Photovoltaics," it reported that male and female rats that received CT through ingestion did not gain weight as they normally should have. This lack of weight gain occurred at low, moderate and high doses. When inhaled, CT also prevented normal weight gain and caused lung inflammation and lung fibrosis, a hardening of lung tissue. From low to high doses of inhaled CT, the weight of the lungs increased. Moderate to high doses of inhaled CT proved lethal.

Copper Indium Selenide

The study of rats in "Progress in Photovoltaics" showed that ingestion of moderate to high doses of copper indium selenide (CIS) prevented weight gain in females but not males. Moderate to high doses of inhaled CIS increased the weight of a rat's lungs and increased lung fibrosis. Lungs exposed to CIS produced high amounts of fluid. Another study of CIS on rats, reported in "Toxicology and Applied Pharmacology," revealed that inhaling CIS caused rats to develop abnormal growths in their lungs.

Cadmium Indium Gallium (Di)selenide

Cadmium indium gallium (di)selenide (CIGS) is another chemical in solar panels that is toxic to lungs. The "Journal of Occupational Health" reported a study in which rats received doses of CIGS injected into the airway. Rats received CIGS three times a week for one week, and then researchers examined lung tissue until three weeks after that. The scientists used a low, moderate and high dose of CIGS. All doses resulted in lungs that had spots that were inflamed, meaning they were damaged. Lungs also had spots that produced excessive fluid. These spots worsened as time went on after the one week of exposure.

Silicon Tetrachloride

One of the toxic chemicals involved with solar panels is not what's in the panels but is a byproduct of their production. Crystalline silicon is a key component of many solar panels. The production of crystalline silicon involves a byproduct called silicon tetrachloride. Silicon tetrachloride is highly toxic, killing plants and animals. Such environmental pollutants, which harm people, are a major problem for people in China and other countries. Those countries mass-produce "clean energy" solar panels but do not regulate how toxic waste is dumped into the environment. The country's inhabitants often pay the price.

References

Stanford Magazine: The Possibility of a Solar-Powered Nation

Toxicology and Applied Pharmacology: Comparative Pulmonary Absorption, Distribution, and Toxicity of Copper Gallium Diselenide, Copper Indium Diselenide, and Cadmium Telluride in Sprague–Dawley Rats

Journal of Occupational Health: Subacute Pulmonary Toxicity of Copper Indium Gallium Diselenide Following Intratracheal Instillations into the Lungs of Rats.

Washington Post: Solar Energy Firms Leave Waste Behind in China

About the Author

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David H. Nguyen holds a PhD and is a cancer biologist and science writer. His specialty is tumor biology. He also has a strong interest in the deep intersections between social injustice and cancer health disparities, which particularly affect ethnic minorities and enslaved peoples. He is author of the Kindle eBook "Tips of Surviving Graduate & Professional School."

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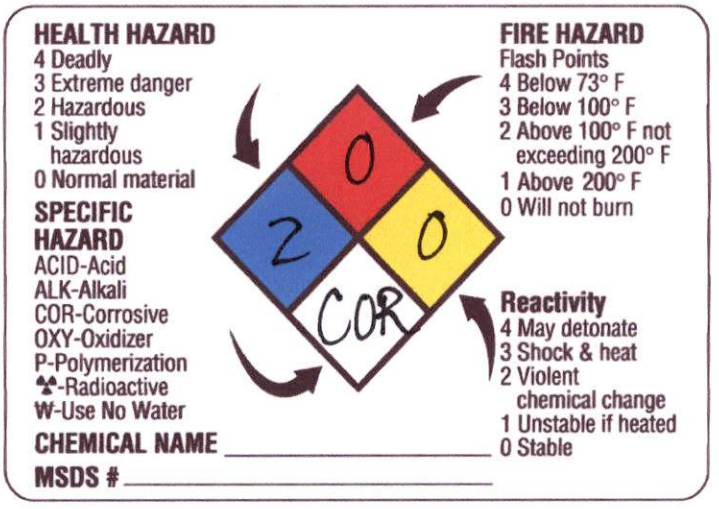

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Download TDS:

- PV_Klean_TDS.pdf

Specifications

- Primary Application: Photovoltaic Cell Cleaner
- pH: 11.5
- VOC: (g/L): 0
- Foam: Moderate foam
- NFPA: 2, 0, 0, corrosive
- Sizing: 1-Gal

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CLEANING A PANEL WITH HARD WATER MAKE A DIFFERENCE?

oes cleaning a panel with hard water make a difference? ABSOLUTELY!!! Hard water can accumulate on a panel and cause scaling. The accumulation of this scaling can cause a reduction in electrical output, reverse polarity or "hot spotting" which can kill a solar panel.

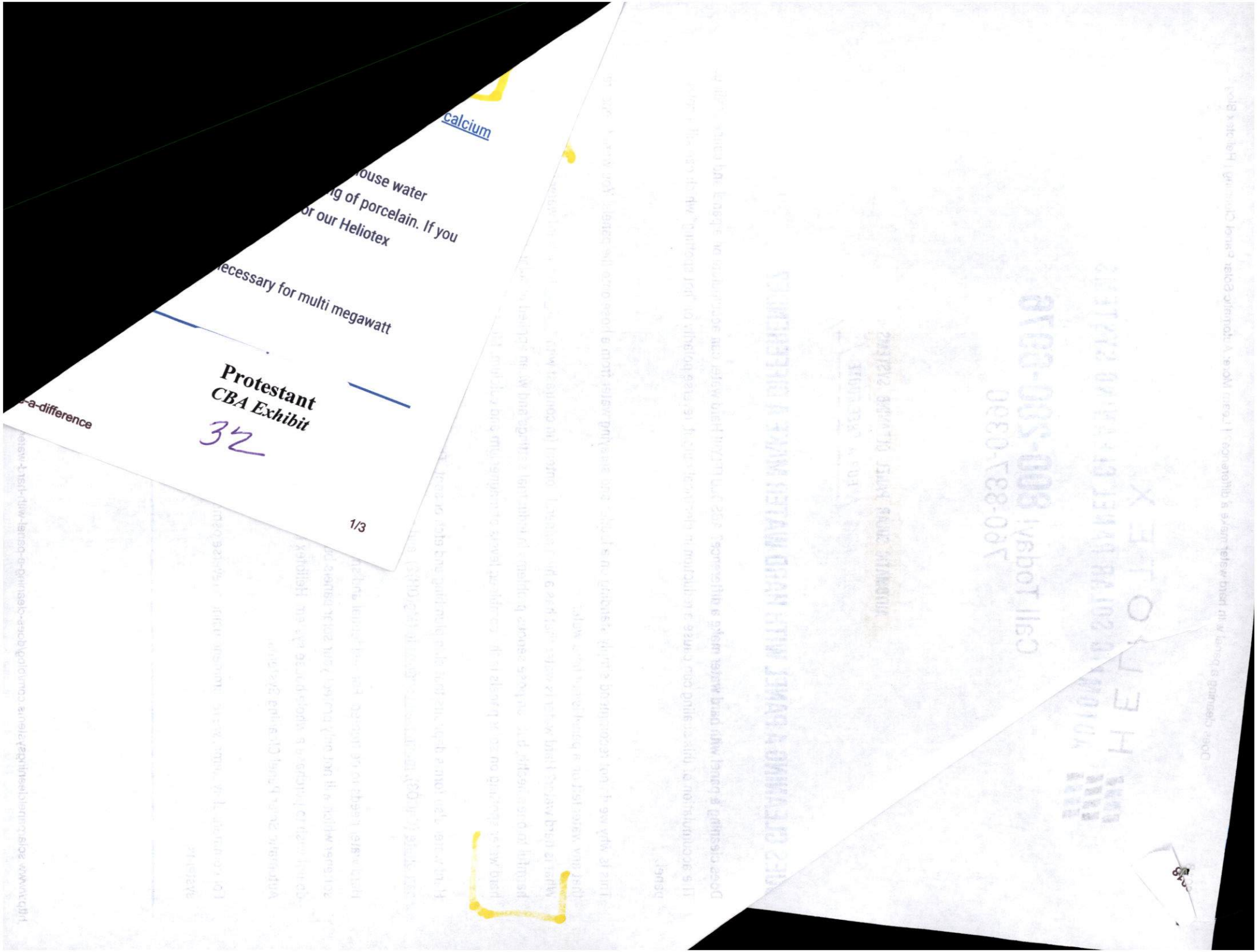
This is why we do not recommend simply standing on a ladder and spraying water from a hose onto the panels. You want to ensure that any water left on a panel is not hard water.

What is hard water? Hard water is water that has a high mineral content (in contrast with "soft water"). Hard water is generally not harmful to one's health, but can pose serious problems in industrial settings and when applied to solar panels. Of primary concern for hard water spotting on solar panels is the combined levels of magnesium and calcium. Most areas of the U.S. have hard water.

Hard water also forms deposits that clog plumbing and etch or spot. These deposits, called "scale", are composed mainly of carbonate ($CaCO_3$), magnesium hydroxide ($Mg(OH)_2$), and calcium sulfate ($CaSO_4$).

Hard water needs to be treated. For residential and small business applications, you may wish to consider a whole h softener which will not only protect your solar panels but will work to reduce clogging of pipes, scaling and etchi do not wish to purchase a whole house system, Heliotex has small water softeners available which will work f Automatic Solar Panel Cleaning Systems.

For commercial systems, we recommend using a reverse osmosis unit to clean the volume of water r systems.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Notice the calcium streaks from using hard water without filtration. These panels are only two years old and are unlikely to last more than two or three years more without significant damage.

INFORMATION FROM OUR LAB:

- Hardness of water is the combination of both Calcium and Magnesium together.
- A combined score (from a metals analysis of a water sample sent to the lab) of 50 or less is soft water (see below information again due to lack of standardization of what constitutes "hard water")

To achieve the hardness total:

- Take the Calcium score number and multiply it by 2.4. Eg. 9.5 times 2.4 = 22.8
- 22.8 plus 16.4 = 39.2 which is soft water as it is under 50

Note that there is disagreement from sources as to what hardness number constitutes "hard water." Some say up to a score of 100 is okay. We tend to work with the more conservative number of 50.

How can I test a sample of my water?

The best way to test your water is to take a sample at the site you intend to install an array and send it to a lab for a metals analysis. In the U.S., we have a lab that will give us a complete analysis for about $75.00. Please contact us and we will refer you to the lab.

This entry was posted in Solar Panels on November 9, 2012 [http://www.solarpanelcleaningsystems.com/blog/does-cleaning-a-panel-with-hard-water-make-a-difference] by Gene Hunt.

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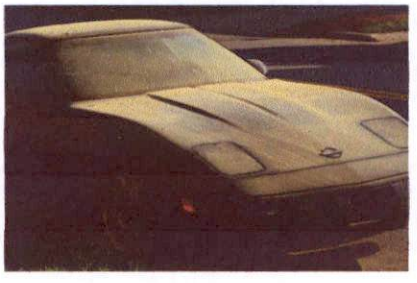
TIPS FOR POLLEN REMOVAL AND KEEPING YOUR CAR CLEAN

BY MATTHEW C. KEEGAN MAY 6, 2016

With winter becoming a rapidly receding dot in your rear-view mirror, warmer weather brings much needed relief to people and their cars alike. No longer must you deal with frozen door locks, ice-encased windshields or copious amounts of corrosive road salt. Nevertheless, there is a springtime malady that brings its very own kind of misery: tree pollen. Left untreated, pollen can actually corrode the body of your car. Here's how to go about the task of pollen removal and keep your car pollen-free all season long.

Problematic Pollen



In early spring, blooming trees, particularly conifers, release copious amounts of pollen. A greenish-yellow dust settles everywhere along house tops, the ground and everything in between — including on your car.

Pollen itself is not especially harmful. For some people, it makes it harder for them to breathe or causes sneezing — a problem best left to the medical experts. When pollen settles on any surface, it typically stays there until wind or rain removes it. For car owners, though, leaving pollen in place is not just unsightly; it could also damage the paint.

Pollen is considered environmental fallout, along with acid rain, bird droppings, tree sap and decaying insects as threats to material surfaces, including auto finishes. Leaving pollen on your car or waiting for nature to provide assistance does it no good.

Wash and Wax for Protection

The easiest solution to pollen buildup is simply to wash your car. Gather your usual materials, car wash cleaner, sponges, rags, microfiber towels and buckets, and start the car washing process.

Connect your hose, turn it on and adjust the nozzle to a normal setting. From the top of the car and down to the sides, wash off every square inch of the vehicle. Next, set the hose aside, add a car wash solution to your bucket, fill it with water and use a heavy duty sponge to go over every surface. Again, start from the top and go to the bottom of the vehicle. Use separate sponges for non-paint surfaces, such as the wheels, chrome and glass.

Dry your car with a clean towel, and apply a car wax solution immediately. However, skip this step if you are in the midst of a pollen storm; you might find yourself rubbing pollen into your car's finish and damaging the paint. Plan on washing your car again within a few days for pollen removal. Wait for the opportunity to apply car wax when pollen is not flying through the air. Wax may not prevent pollen build up, but it will protect your car's finish against all types of environmental fallout.

Pollen Removal and Protection

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FIVE CAUSES OF D VALUE
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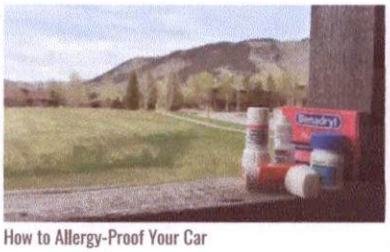
Certainly, pollen removal is a priority. Waiting for nature to take its course can damage the paint, thereby reducing the value of your car. Ideally, though, you should plan on washing your car and waxing it as soon as winter ends to remove corrosive road salt build up and to provide a level of protection before the spring pollen onslaught returns.

Once tree pollen season eases, you can return to a normal car wash routine. Add in quarterly waxing, and you will retain your car's sheen and preserve its great looks. You may not be able to prevent pollen accumulation, but by following these pollen removal tips you keep your car looking great.

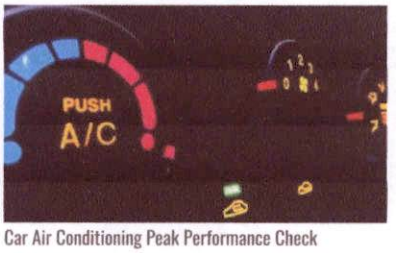
Check out all the chemical products available on NAPA Online or trust one of our 16,000 NAPA AutoCare locations for routine maintenance and repairs. For more information on pollen removal, chat with a knowledgeable expert at your local NAPA AUTO PARTS store.

Image courtesy of Flickr

Related


How to Allergy-Proof Your Car


6 Car Cleaning Products to Master the DIY Car Wash



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ABOUT AUTHOR

Matthew C. Keegan
Matt Keegan has maintained his love for cars ever since his father taught him kicking tires can be one way to uncover a problem with a vehicle's suspension system. He since moved on to learn a few things about coefficient of drag, G-forces, toe-heel shifting, and how to work the crazy infotainment system in some random weekly driver. Matt is a member of the Washington Automotive Press Association and is a contributor to various print and online media sources.

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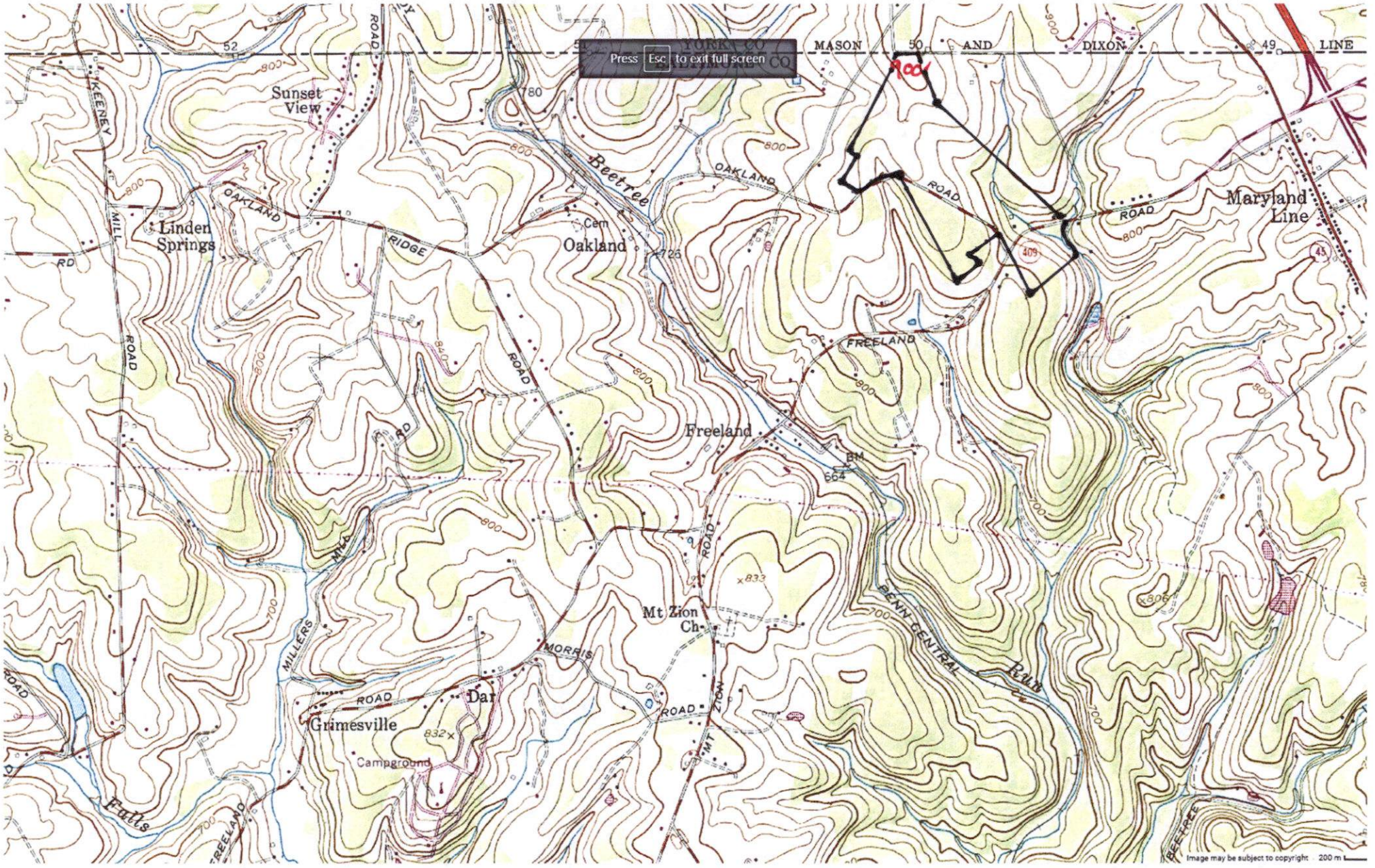

Proposed solar field at 632 Freeland Rd is located higher than 900' above sea level, making this property unique as the highest point in north central Baltimore County.
(Each contour line represents 20')

https://www.topozone.com/map/?lat=39.2372&lon=-79.4856

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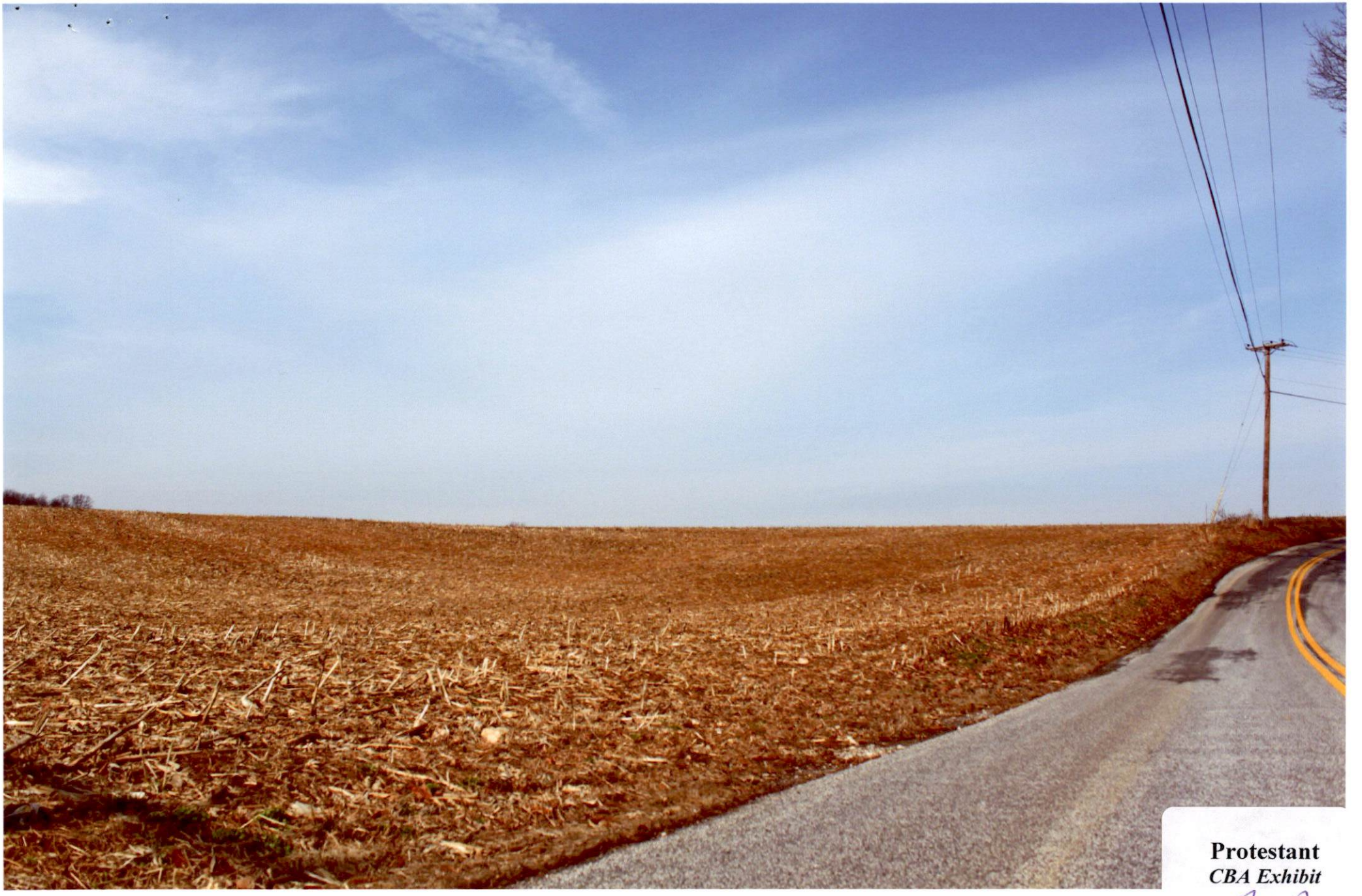
Swale on South side of Oakland Rd, opposite proposed site field. Note channel for runoff; this hydro channel connects to a spring-fed pond on neighboring property.

Note valley with open fields, surrounded with forests, extending South into the distance. This is the direction from which hurricanes blow though this region, with winds unchecked with open fields. Structures, such as solar arrays, built in this path would logically sustain higher winds gusts than other more protected sites, especially at this higher altitude.

PHOTOS: 3/29 + 7/20/18



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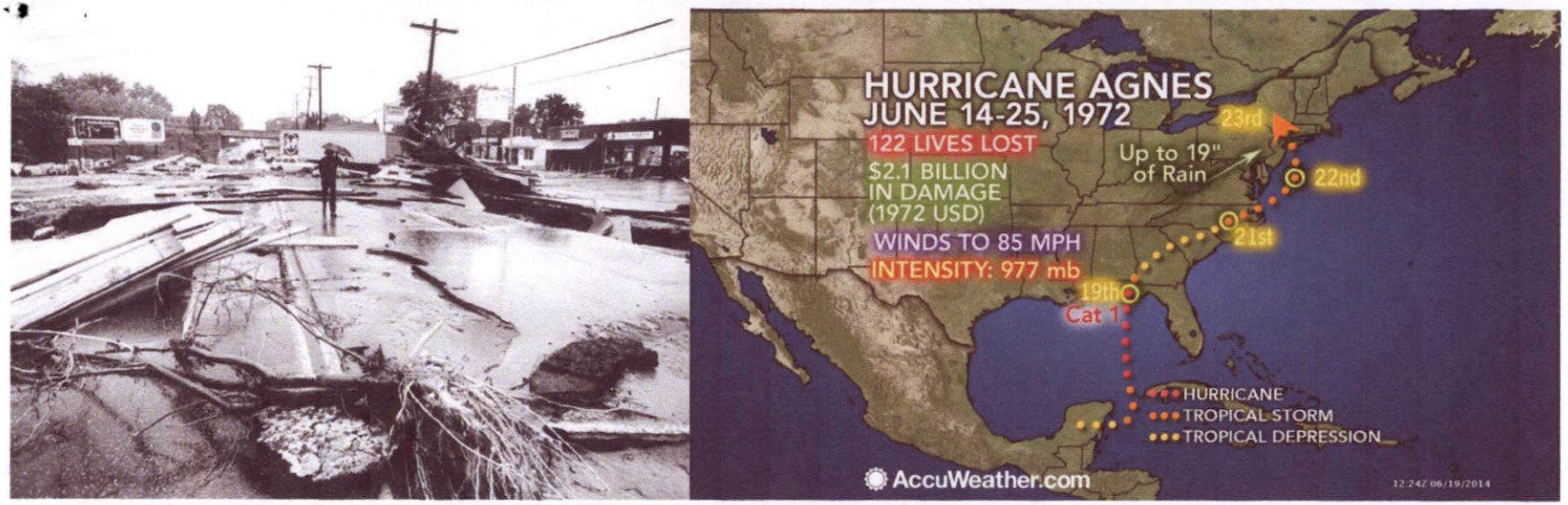
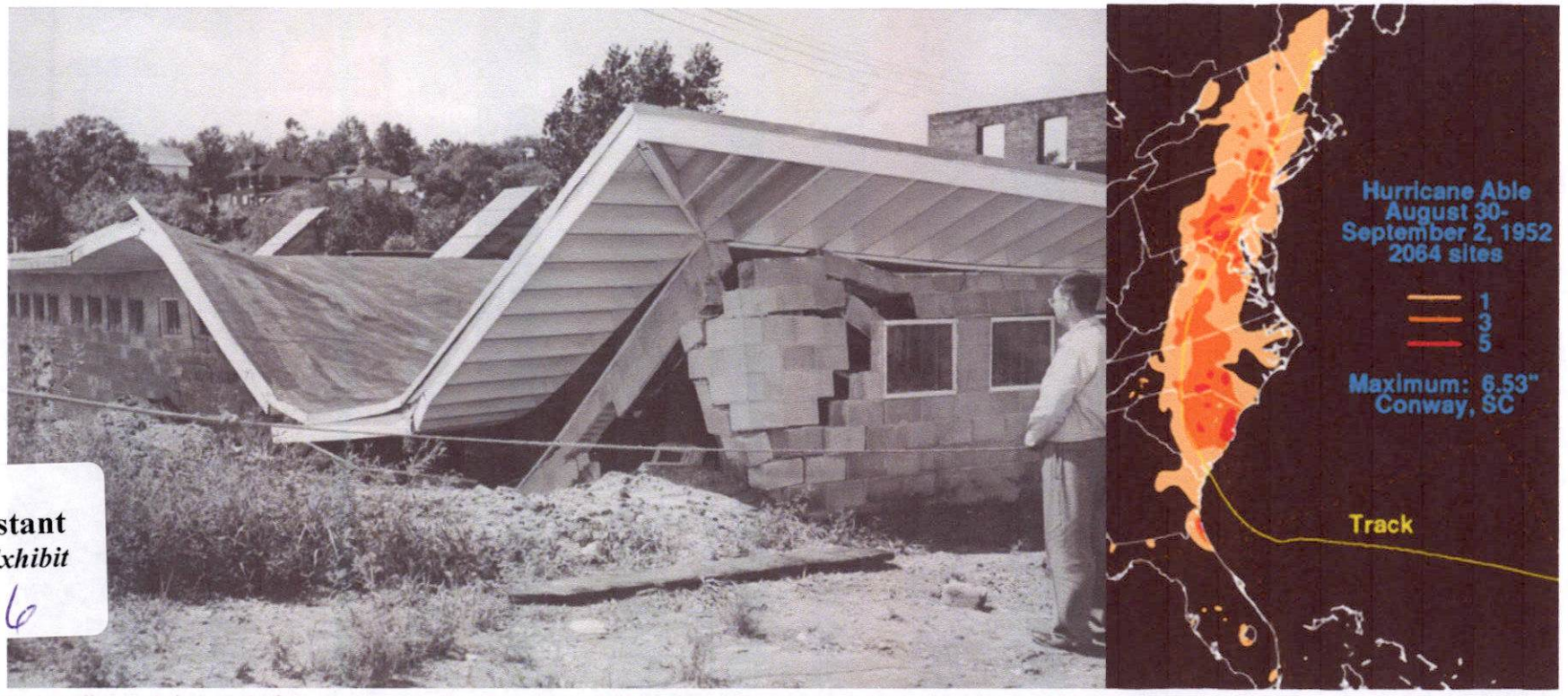
Proposed solar array site, opposite hydro swale on Oakland Rd.
Note open area of field which would not block high winds and damaging storms which often hit this area. This ridge extends northward into PA, behind tree line on top left side of photo.
3/29/2018



Devastation of Hurricane Agnes to Maryland town, June 21, 1972



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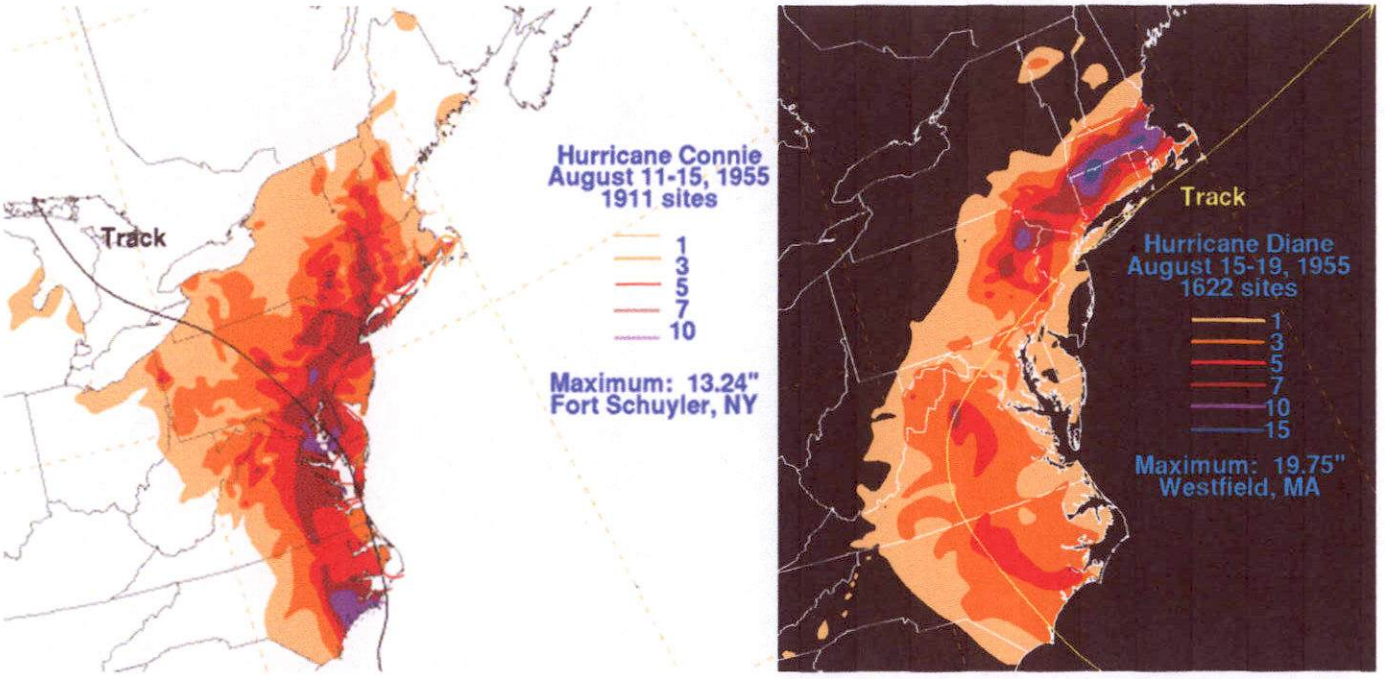
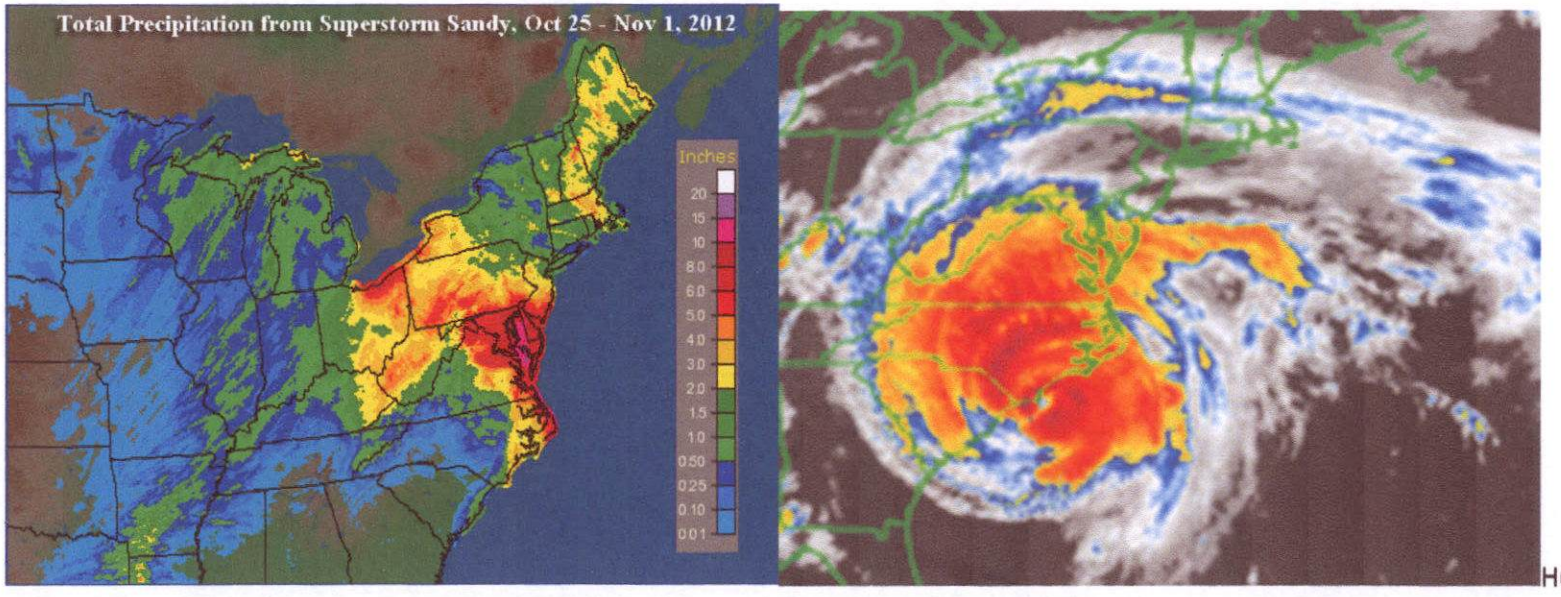
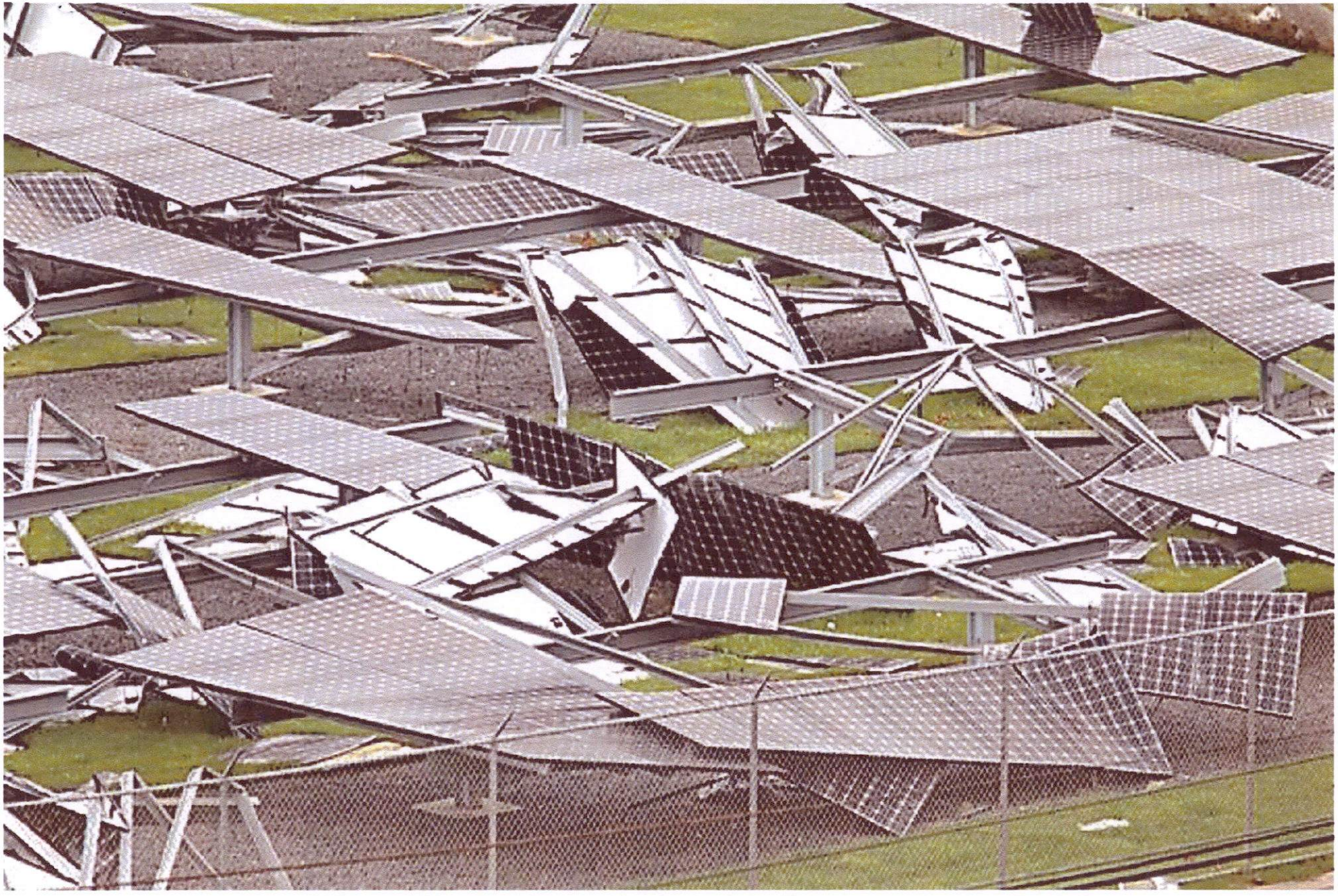
High winds collapsed the roof of the Dover Poultry Company, 2036 Annapolis avenue, during Hurricane Able. Black and White Photo dated September 1, 1952.
(William Klender/Baltimore Sun)





Hurricane Fran



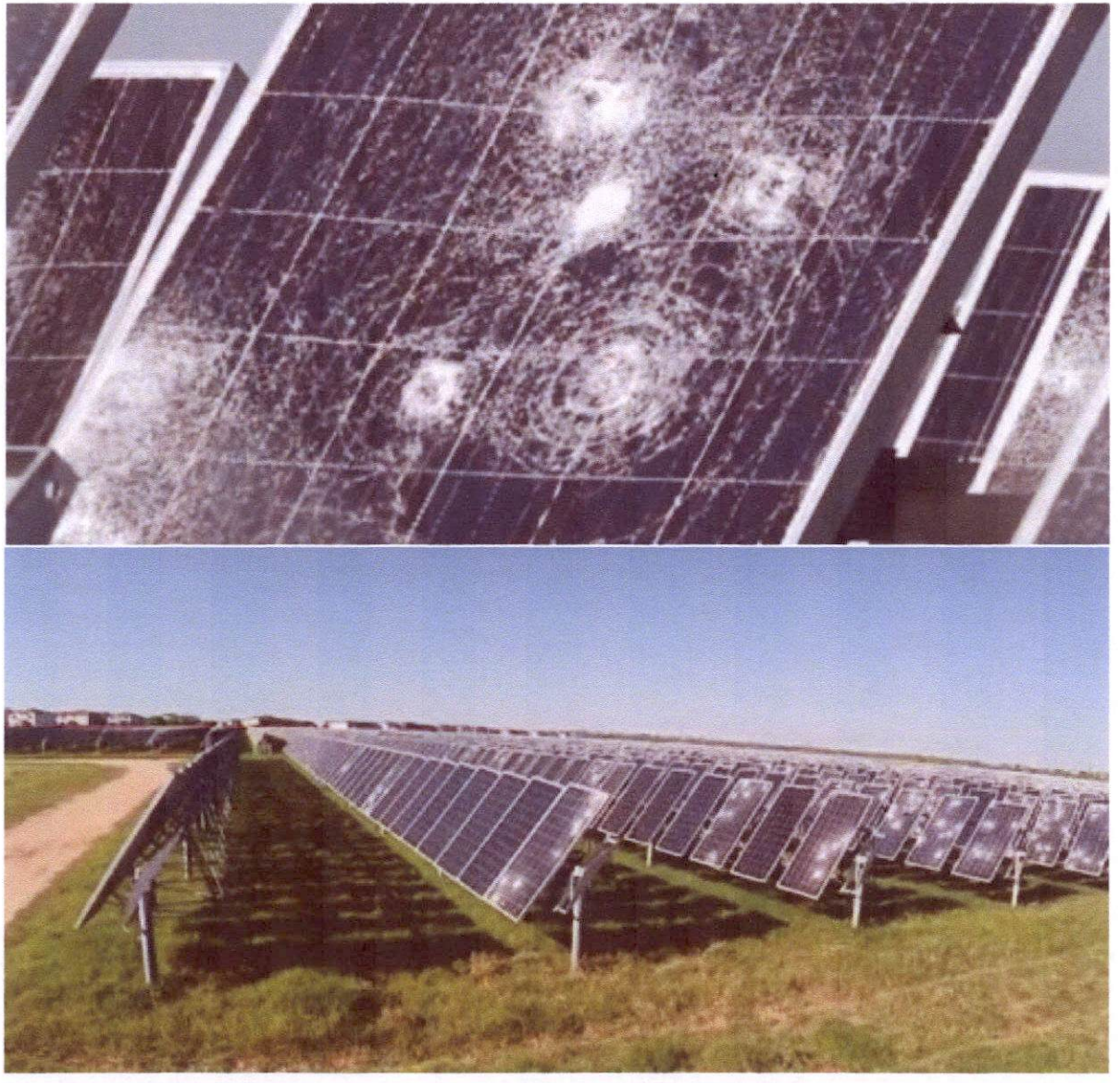
Solar panels destroyed at US Federal Courthouse, Christiansted Virgin Islands, Hurricane Maria, 9/2017



Solar panels destroyed by a hurricane, Sept. 2017 (image: Time Magazine)
Historically Maryland has had direct hits by Hurricanes; this destruction could happen in Baltimore County.

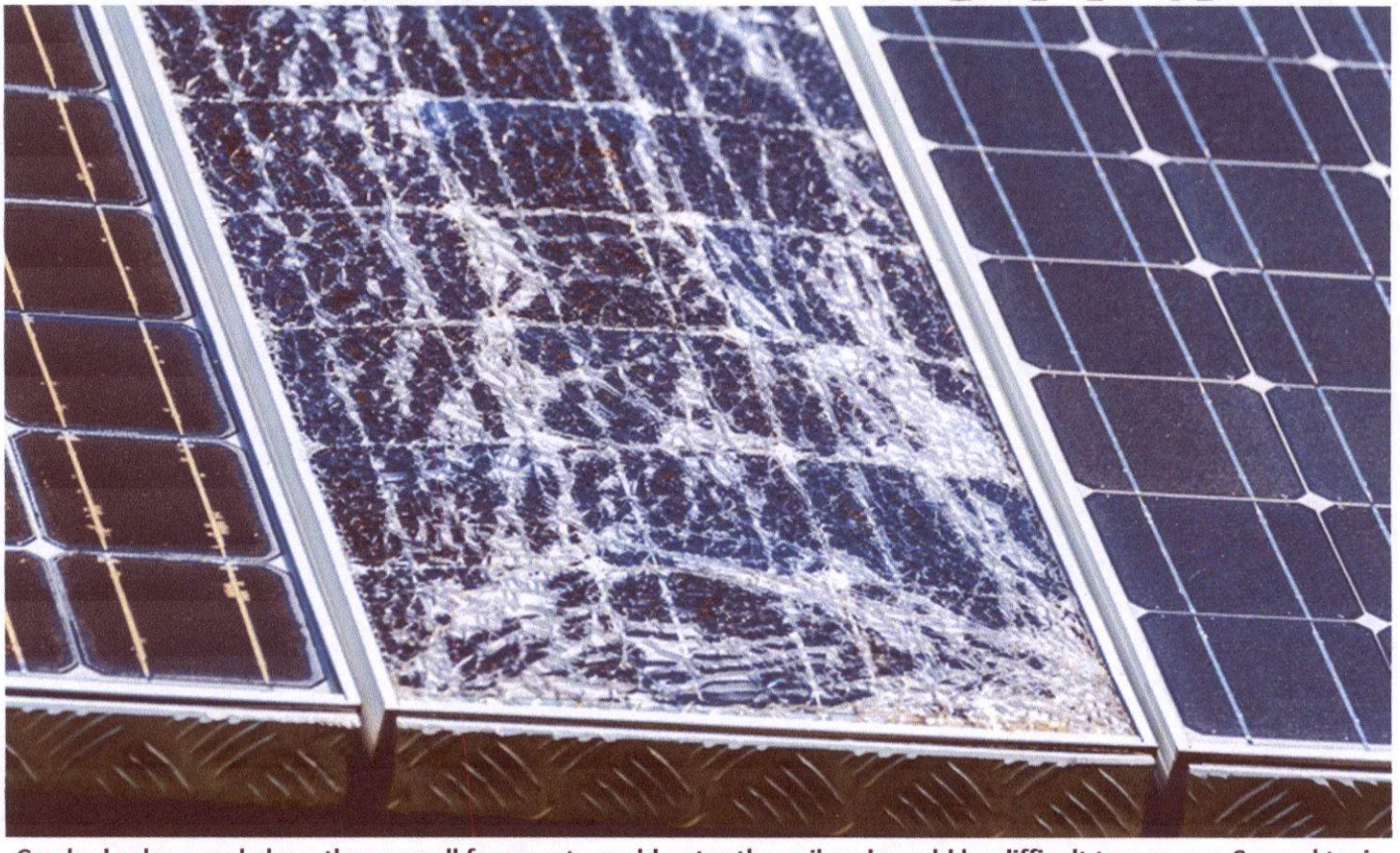
Small-scale EPC replaces 17,920 panels at two-year-old solar farm

By Kelly Pickerel | July 25, 2017
Sometimes freak accidents happen. Like when a hail storm takes down an entire 4.4-MW solar farm in Texas.





Fire damaged panels: https://instylesolar.com/debate-a-solar-denier/solar_palen_fire_damage_transwest



Cracked solar panel glass: these small fragments could enter the soil and would be difficult to remove. Several toxic compounds (gallium arsenide, cadmium compounds, silicon tetrachloride, hexafluoroethane and lead are a few) are used in the manufacture of panels. Heavy metals need to be mined at the end of panel life, which are also released if destroyed onsite.



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Photos of summer afternoon rain storm Aug 31,2018. There had been no rain in area for 10 days preceding this storm. 3-5" fell in 2 ½ hours.
632 Freeland Rd Property, blue outlined area. Turquoise area is floodplain area and streams. Numbered dots correspond to locations of photos.



On right in photos: 612 & 632 Freeland Rd (mailboxes at driveways) Atkinson Property, facing west.

Within minutes this road was covered with storm runoff, forcing drivers to turn their vehicles around for safety reasons.

Note runoff on grass to left of road; this water flows into the stream that joins with another stream to the east of the property, which together flows onto Heathcote Rd.



Oakland Road, farmland south of property. This image shows flooding runoff from proposed site.
This water runs into the pond closer to Freeland Rd, causing another runoff area on Freeland Rd south of Atkinson property.



Runoff from PA field (on left), north of property on Orwig Rd.; MD residences to right in photo.
This field is on a high point in area and water runs in southerly direction heading to lower ground to right in photo.
This runoff continues to proposed field site, exacerbating runoff from that field which, when combined with this runoff, flooded Freeland Rd and properties south, downstream.
(Photo taken through car windshield with wipers turned off)

July 2018 | View: | August | 2018 | September 2018

Date	Hi/Lo	Precip	Snow	Forecast	Avg. HI / LO
Wed 8/1	85°/70°	1.26 IN	0 IN		87°/63°
Thu 8/2	81°/69°	0.29 IN	0 IN		86°/63°
Fri 8/3	81°/71°	0.96 IN	0 IN		86°/63°
Sat 8/4	86°/68°	0.53 IN	0 IN		86°/63°
Sun 8/5	91°/65°	0 IN	0 IN		86°/63°
Mon 8/6	92°/69°	0 IN	0 IN		86°/63°
Tue 8/7	90°/68°	0.04 IN	0 IN		86°/63°
Wed 8/8	88°/67°	0.12 IN	0 IN		86°/63°
Thu 8/9	87°/67°	0 IN	0 IN		86°/63°
Fri 8/10	86°/65°	0 IN	0 IN		86°/63°
Sat 8/11	86°/70°	0 IN	0 IN		86°/63°
Sun 8/12	81°/70°	0 IN	0 IN		86°/63°
Mon 8/13	82°/66°	0.29 IN	0 IN		86°/63°
Tue 8/14	80°/65°	0.01 IN	0 IN		86°/62°
Wed 8/15	87°/65°	0 IN	0 IN		86°/62°
Thu 8/16	88°/65°	0 IN	0 IN		86°/62°
Fri 8/17	90°/70°	0.23 IN	0 IN		85°/62°
Sat 8/18	84°/68°	0.71 IN	0 IN		85°/62°
Sun 8/19	72°/66°	0.17 IN	0 IN		85°/62°
Mon 8/20	76°/65°	0 IN	0 IN		85°/62°
Tue 8/21	79°/69°	0.66 IN	0 IN		85°/62°
Wed 8/22	82°/62°	0 IN	0 IN		85°/62°
Thu 8/23	78°/56°	0 IN	0 IN		85°/61°
Fri 8/24	81°/52°	0 IN	0 IN		84°/61°
Sat 8/25	81°/57°	0 IN	0 IN		84°/61°
Sun 8/26	85°/59°	0 IN	0 IN		84°/61°
Mon 8/27	89°/64°	0 IN	0 IN		84°/61°
Tue 8/28	92°/67°	0 IN	0 IN		84°/60°
Wed 8/29	91°/70°	0 IN	0 IN		84°/60°
Thu 8/30	88°/69°	0 IN	0 IN		83°/60°
Fri 8/31	80°/70°	0.47 IN	0 IN		83°/60°

July 2018 | September 2018

Month of August 2018 Rainfall Amounts and Temperatures

www.accuweather.com/en/us/freeland-md/21053/august-weather/8786_pc?monyr=8/1/2018&view=table

The last rainfall in Freeland, prior to the 8/31/2018 flooding, was on 8/21/18 (10 days prior).
Topsoil in this area was dry to the touch before the flooding occurred.



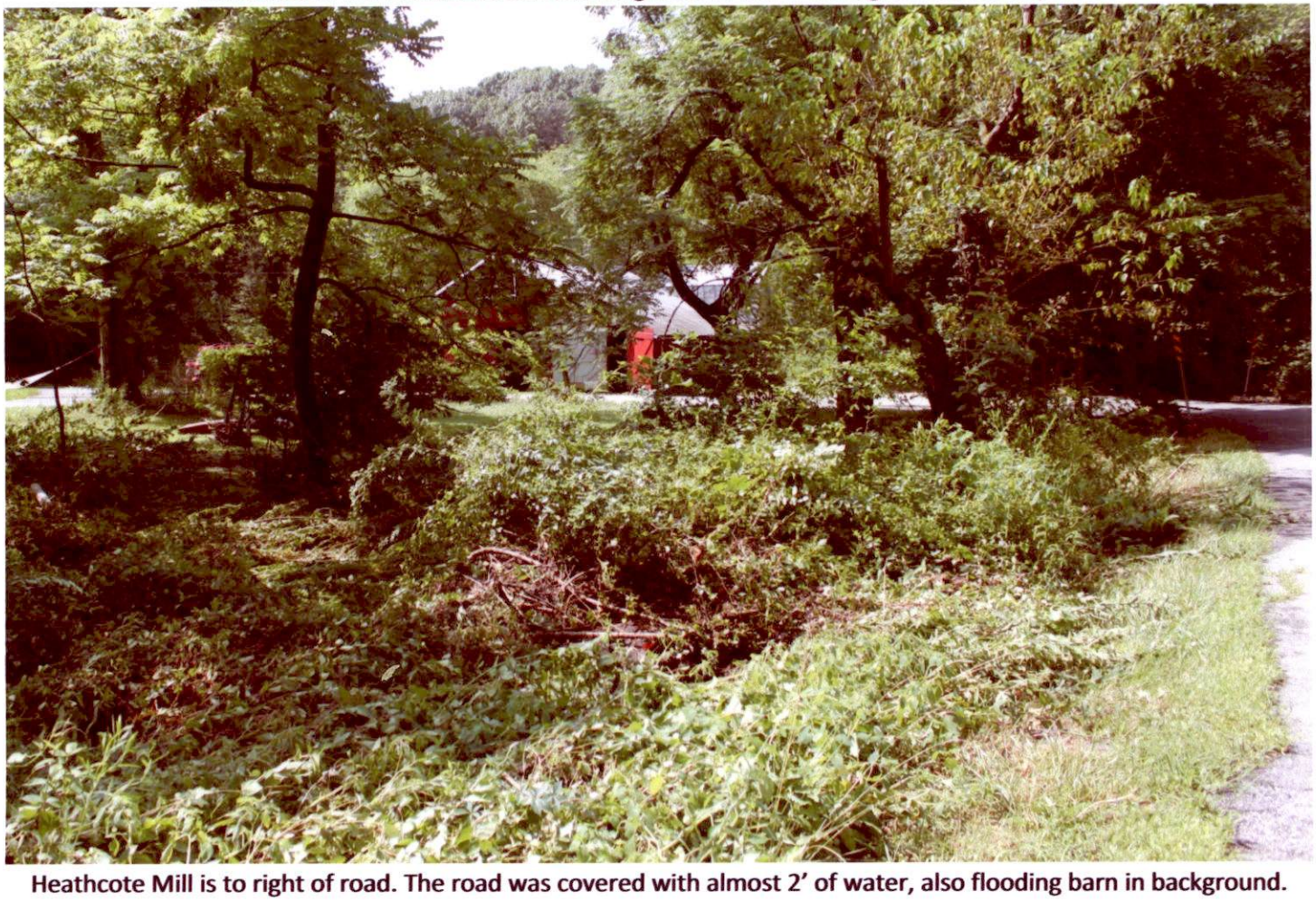
Heathcote Rd at Freeland Rd. Photos: 7/26/2018, day after summer storm.



Heathcote Mill: Children's play area and stream



Residents of the Heathcote Mill showing level of water during storm, the day after.



Heathcote Mill is to right of road. The road was covered with almost 2' of water, also flooding barn in background.



Heathcote Rd was damaged to extent that County road crews had to repair it in 3 places in this photo (L,R & Center)



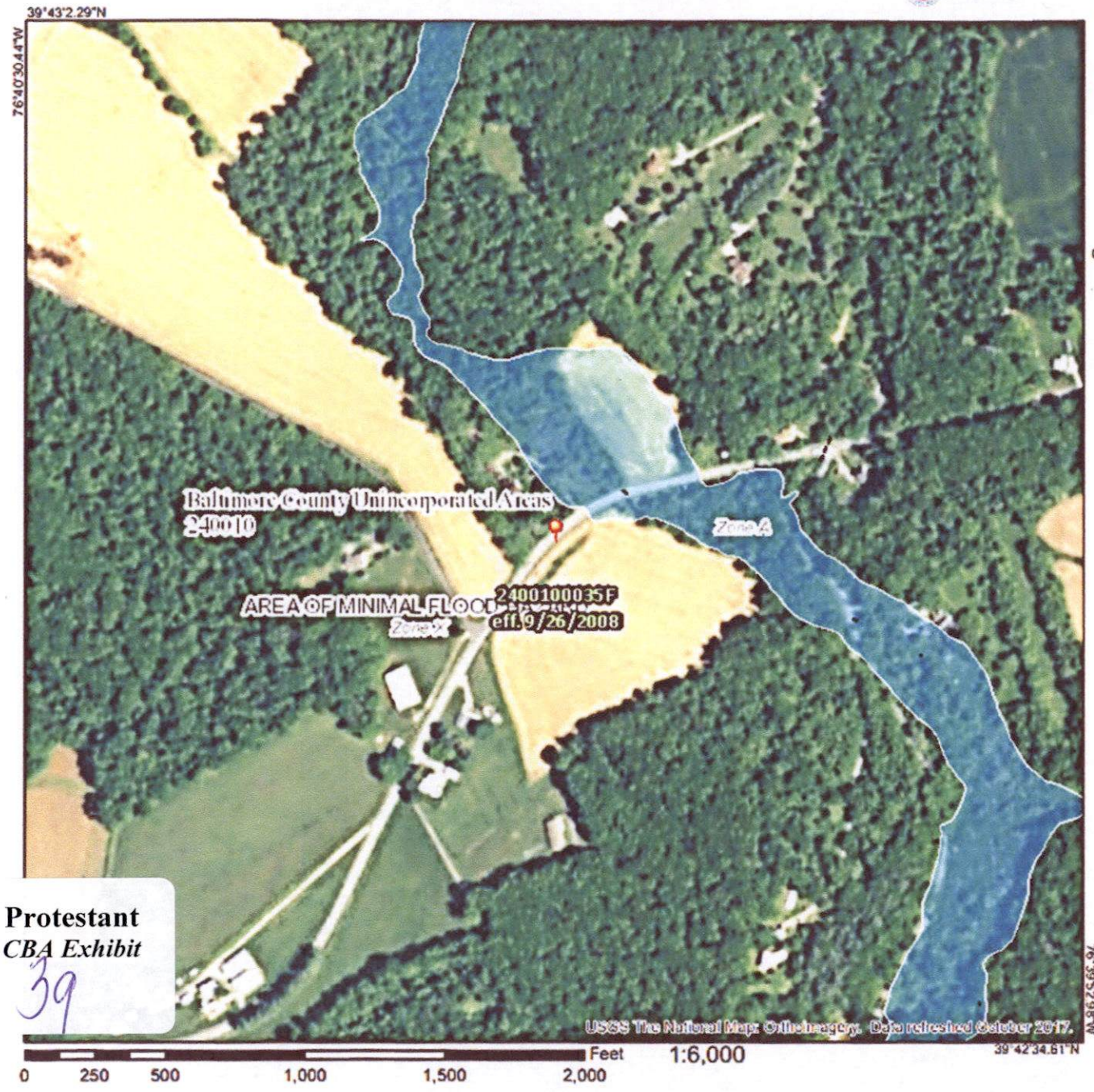
Heathcote Rd, facing north towards Freeland Rd. This road was covered by runoff during storm. See accumulation of sediment and debris on right next to streambed.



Photo taken 7/25/2018 at Heathcote Center by Karen Stupski, resident.

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 97 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/21/2018 at 2:18:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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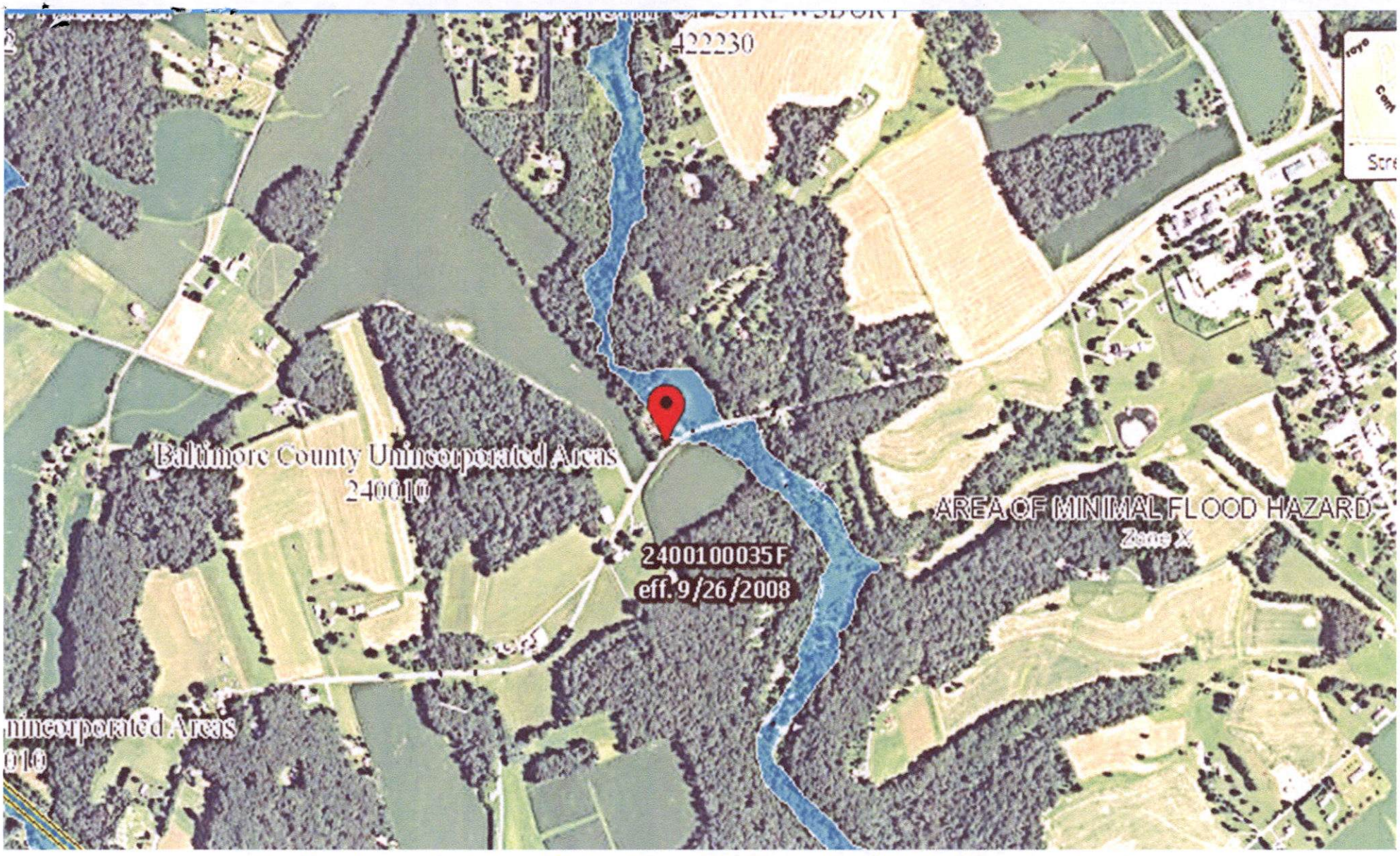
https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/nfhlprinttool2_gpserver/j20008acf56544786828d8b20db7355ce/scratch/FIRMETTE_670897e1-bdca-11e8-bf94-001b21b31e35.pdf



https://msc.fema.gov/portal/search?AddressQuery=632%20freeland%20rd%2021053#searchresultsanchor

632 Freeland Rd



Photo taken 7/20/2018



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Photo taken 9/22/2018

This is difference in streambed from 2 summer rain storms. Mr. Rohe is indicating where earlier edge of stream was.



Photo taken 7/20/2018



Photo taken 9/22/2018

Area where 2 streams meet on Rohe property.



Photo taken 7/20/2018



Photo taken 9/22/2018

Waterfall is now 20' upstream from top photo, 2 storms later.



Simmons Road Solar Facility

The 2 MW Simmons Road Solar facility commissioned in January of 2018 and is located on the City's northside. The site is estimated to generate about 3,850 MWh in the first year (Jacksonville)

https://www.jea.com/about/electric_systems/generation_strategy/alternative_energy/solar_generation/

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Fencing around Electrical Station in Oregon Ridge Park; photos taken 10/2/2018.

Top photo: Beaver Dam Rd in front of metal fence, approx. 615' L, 130' W = approx. 80,000 sq. feet of contained area.

Bottom: Rear of Electrical Station which faces Oregon Ridge's nature trails and open fields. See landscaping plantings. It will take several decades of tree growth to hide view of fence from surrounding scenic views.

Fencing around the proposed Freeland Rd site is approx. 1,060' L and approx. 480' W = approx. 509,000 sq feet of contained area; over 6X the size of Oregon Ridge's.

BALTIMORE COUNTY, MARYLAND

INTEROFFICE CORRESPONDENCE

TO: Arnold Jablon, Director
Department of Permits, Approvals
And Inspections

DATE: March 1, 2018

FROM: Vishnu Desai, Supervisor
Bureau of Development Plans Review

SUBJECT: Zoning Advisory Committee Meeting
For February 12, 2018
Item No. 2018-0194-X

The Bureau of Development Plans Review has reviewed the subject zoning items and we have the following comments.

If Special Exception is granted a landscape plan is required per the requirements of the Landscape Manual, Bill No. 37-17 and the CMDP. Specific landscape comments:

1. Freeland and Oakland Roads are Baltimore County Scenic Routes,
2. Perimeter landscape buffers are required,
3. Must minimize tree and vegetation removal,
4. Solar panels are considered a utility and should be designed and located to harmonize with the surroundings and to create the least visual impact. (See Comment # 8, 9, & 10 below),
5. Additional landscape buffers (including contour strip buffers) may be required to address existing topography changes, Scenic Views, Scenic Routes, etc. depending on a number of items including the subject properties topography,
6. More comments may be rendered during review of the landscape plan,
7. Proposed perimeter fence shall be black vinyl-coated chain-link fence,
8. Proposed landscape screening should begin at or near the 632 Freeland Road Residence located at the southwest corner of the subject property on Oakland Road and extend eastward along Oakland Road approximately 1,000 feet to assure screening of the solar array field from Oakland Road views.
9. Both 21712 and 21722 Orwig Road are adjacent properties that need to be reviewed for possible landscape screening to be designed and installed between their property and the proposed solar facility.
10. The proposed 20-foot access road may need to have a chicane or bends to assure screening of the solar array field from Oakland Road views if landscape screening does not.
11. Additional landscape and screening may be needed to address adjacent properties views when it relates to the proposed solar facility.

Developer/Owner to grant 10-foot wide Highway Widening along frontage of Oakland Road as well as Freeland Road, at no cost to the County.

* * * * *

VKD: cen
cc: file

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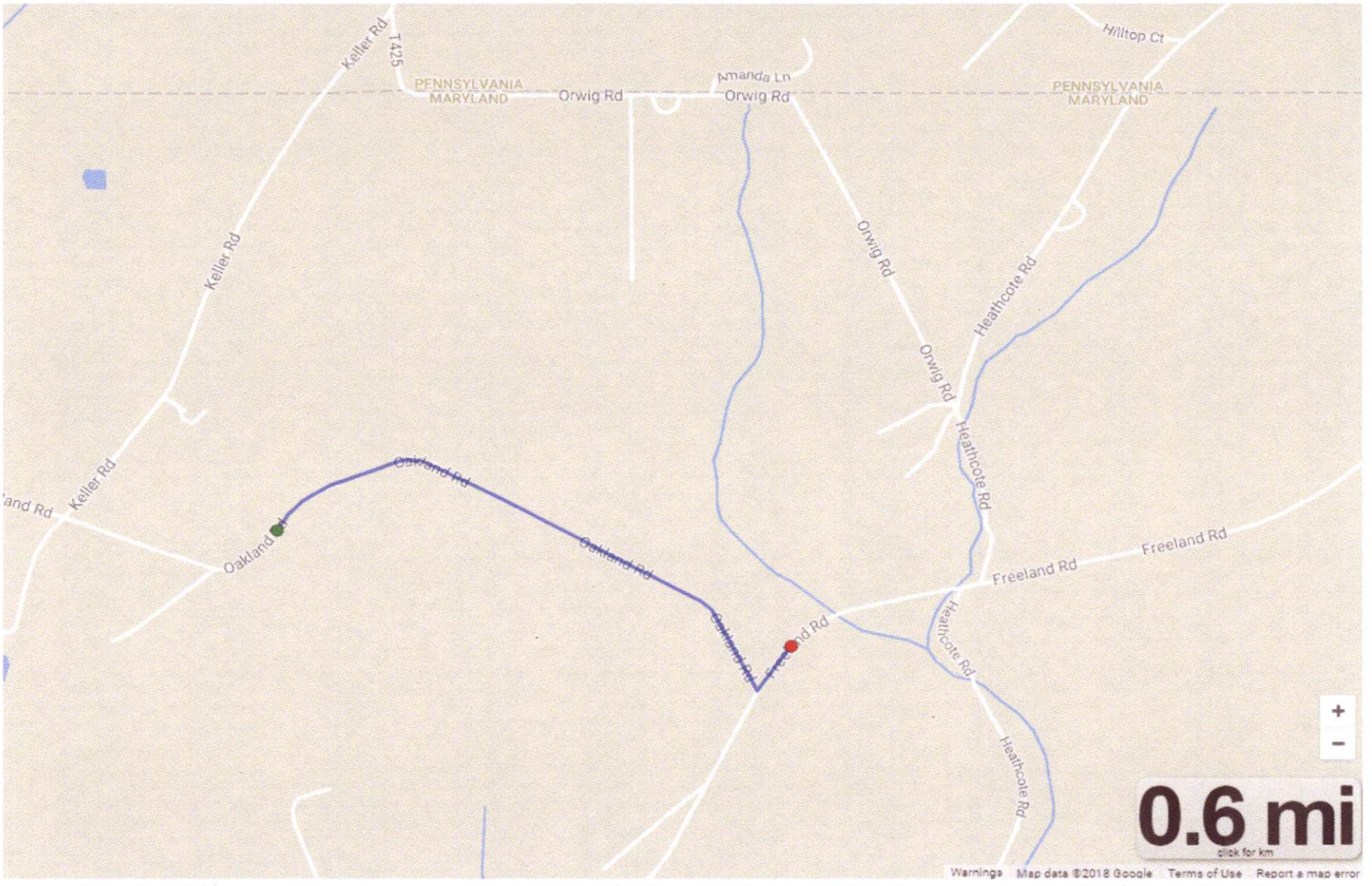

Map: Goggle's www.onthegomap.com Measuring .6 miles from 632 Freeland Rd to site to screen array field from Oakland Rd.

ZAC Interoffice Correspondence, dated Feb. 12, 2018; Development Plans Review comments, #1-11:

1.Freeland and Oakland Rds are both scenic 2. & 3. Landscaping buffers and minimal tree/vegetation removal.

4. Harmonize with surroundings to create least visual impact 5. Additional buffers... address topography changes

7. Proposed chain link fence should not include barbed wire on top (8' H minimum)

8. Landscaping needed for this project to shield both Scenic Routes (Freeland and Oakland Roads) is .6 mile = 3,168 feet, not 1,000'as stated in review.

9.-11. Additional landscaping needed for contiguous properties and access road which would increase total buffers needed.

https://www.ecode360.com/12103862?highlight=502.1#12103862

SECTION 502: Special Exceptions

[BCZR 1955]

(See Section 270, Schedule of Special Exceptions.)

NOTE: Certain types of uses are required to secure a permit to allow them to be placed in one or more zones in which their uncontrolled occurrence might cause unsatisfactory results of one kind or another. A few uses, such as dumps and junkyards, are inherently so objectionable as to make extra regulations and controls advisable even in the M.H. Zone, to which they are restricted. Others, like a cemetery, do not fit into any of the zone categories, that is, residential, business and industrial, and therefore must be located with discrimination in relation to their surroundings. All the items listed are proper uses of land, but have certain aspects which call for special consideration of each proposal. Because under certain conditions they could be detrimental to the health, safety or general welfare of the public, the uses listed as special exceptions are permitted only if granted by the Zoning Commissioner, and subject to an appeal to the County Board of Appeals.

In granting any special exception, the Zoning Commissioner and the County Board of Appeals, upon appeal, shall be governed by the following principles and conditions.

§ 502.1 Conditions determining granting of special exception.

Before any special exception may be granted, it must appear that the use for which the special exception is requested will not:

A. Be detrimental to the health, safety or general welfare of the locality involved;

B. Tend to create congestion in roads, streets or alleys therein;

C. Create a potential hazard from fire, panic or other danger;

D. Tend to overcrowd land and cause undue concentration of population;

E. Interfere with adequate provisions for schools, parks, water, sewerage, transportation or other public requirements, conveniences or improvements;

F. Interfere with adequate light and air;
[Bill No. 45-1982]

G. Be inconsistent with the purposes of the property's zoning classification nor in any other way inconsistent with the spirit and intent of these Zoning Regulations;
[Bill No. 45-1982]

H. Be inconsistent with the impermeable surface and vegetative retention provisions of these Zoning Regulations; nor
[Bill No. 45-1982]

I. Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5 or R.C.7 Zone, and for consideration of a solar facility use under Article 4F, the inclusion of the R.C. 3, R.C. 6, and R.C. 8 Zones.
[Bill Nos. 74-2000; 37-2017]

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The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures

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Abstract

While photovoltaic (PV) renewable energy production has surged, concerns remain about whether or not PV power plants induce a "heat island" (PVHI) effect, much like the increase in ambient temperatures relative to wildlands generates an Urban Heat Island effect in cities. Transitions to PV plants alter the way that incoming energy is reflected back to the atmosphere or absorbed, stored, and reradiated because PV plants change the albedo, vegetation, and structure of the terrain. Prior work on the PVHI has been mostly theoretical or based upon simulated models. Furthermore, past empirical work has been limited in scope to a single biome. Because there are still large uncertainties surrounding the potential for a PHVI effect, we examined the PVHI empirically with experiments that spanned three biomes. We found temperatures over a PV plant were regularly 3–4 °C warmer than wildlands at night, which is in direct contrast to other studies based on models that suggested that PV systems should decrease ambient temperatures. Deducing the underlying cause and scale of the PVHI effect and identifying mitigation strategies are key in supporting decision-making regarding PV development, particularly in semiarid landscapes, which are among the most likely for large-scale PV installations.

Introduction

Electricity production from large-scale photovoltaic (PV) installations has increased exponentially in recent decades[1,2,3]. This proliferation in renewable energy portfolios and

PV powerplants demonstrate an increase in the acceptance and cost-effectiveness of this technology[4,5]. Corresponding with this upsurge in installation has been an increase in the assessment of the impacts of utility-scale PV[4,6,7,8], including those on the efficacy of PV to offset energy needs[9,10]. A growing concern that remains understudied is whether or not PV installations cause a "heat island" (PVHI) effect that warms surrounding areas, thereby potentially influencing wildlife habitat, ecosystem function in wildlands, and human health and even home values in residential areas[11]. As with the Urban Heat Island (UHI) effect, large PV power plants induce a landscape change that reduces albedo so that the modified landscape is darker and, therefore, less reflective. Lowering the terrestrial albedo from ~20% in natural deserts[12] to ~5% over PV panels[13] alters the energy balance of absorption, storage, and release of short- and longwave radiation[14,15]. However, several differences between the UHI and potential PVHI effects confound a simple comparison and produce competing hypotheses about whether or not large-scale PV installations will create a heat island effect. These include: (*i*) PV installations shade a portion of the ground and therefore could reduce heat absorption in surface soils[16], (*ii*) PV panels are thin and have little heat capacity per unit area but PV modules emit thermal radiation both up and down, and this is particularly significant during the day when PV modules are often 20 °C warmer than ambient temperatures, (*iii*) vegetation is usually removed from PV power plants, reducing the amount of cooling due to transpiration[14], (*iv*) electric power removes energy from PV power plants, and (*v*) PV panels reflect and absorb upwelling longwave radiation, and thus can prevent the soil from cooling as much as it might under a dark sky at night.

Public concerns over a PVHI effect have, in some cases, led to resistance to large-scale solar development. By some estimates, nearly half of recently proposed energy projects have been delayed or abandoned due to local opposition[11]. Yet, there is a remarkable lack of data as to whether or not the PVHI effect is real or simply an issue associated with perceptions of environmental change caused by the installations that lead to "not in my backyard" (NIMBY) thinking. Some models have suggested that PV systems can actually cause a cooling effect on the local environment, depending on the efficiency and placement of the PV panels[17,18]. But these studies are limited in their applicability when evaluating large-scale PV installations because they consider changes in albedo and energy exchange within an urban environment (rather than a natural ecosystem) or in

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Figure 1 : Illustration of midday energy exchange.

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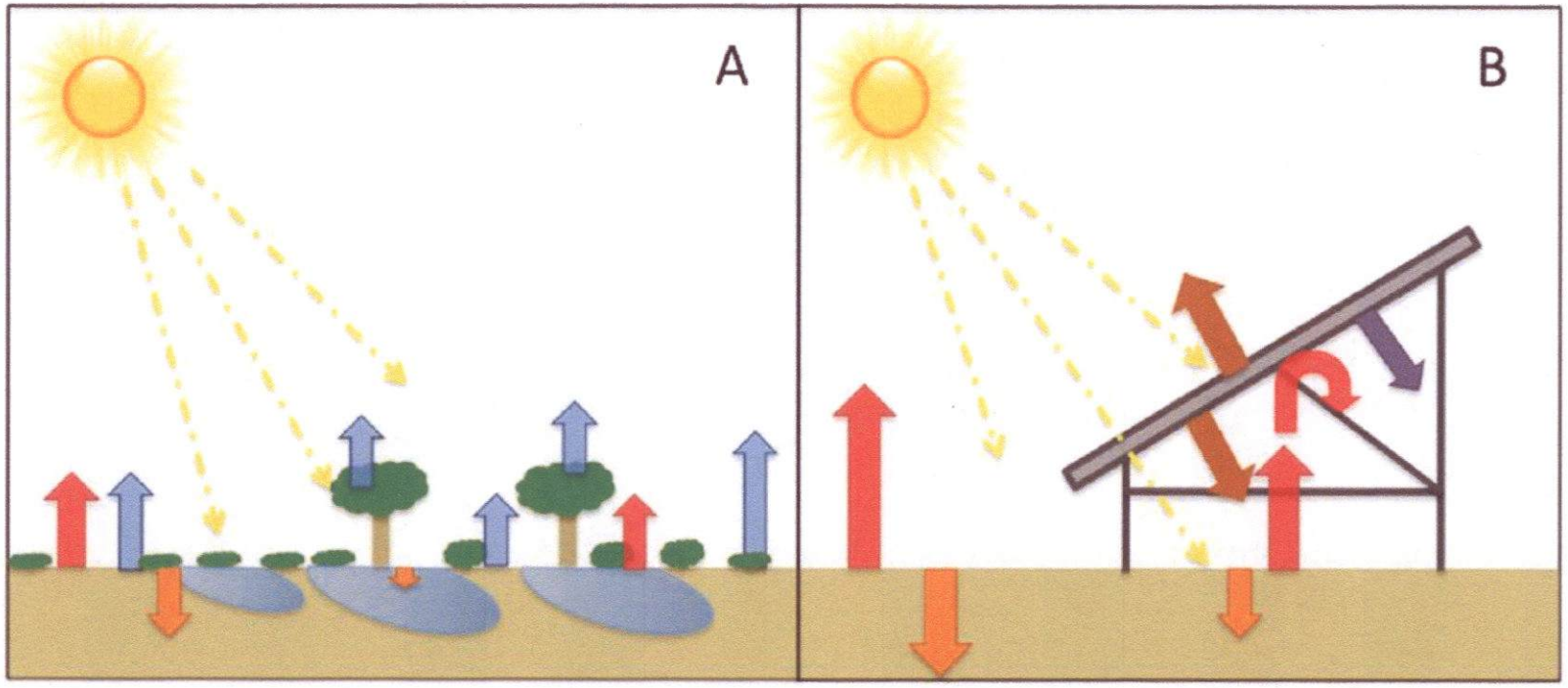
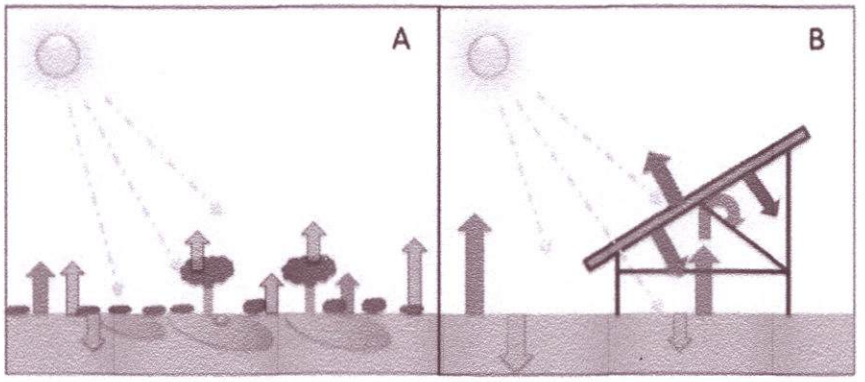


Assuming equal rates of incoming energy from the sun, a transition from (**A**) a vegetated ecosystem to (**B**) a photovoltaic (PV) power plant installation will significantly alter the energy flux dynamics of the area. Within natural ecosystems, vegetation reduces heat capture and storage in soils (orange arrows), and infiltrated water and vegetation release heat-dissipating latent energy fluxes in the transition of water-to-water vapor to the atmosphere through evapotranspiration (blue arrows). These latent heat fluxes are dramatically reduced in typical PV installations, leading to greater sensible heat fluxes (red arrows). Energy re-radiation from PV panels (brown arrow) and energy transferred to electricity (purple arrow) are also shown.

European locations that are not representative of semiarid energy dynamics where large-scale PV installations are concentrated[10,19]. Most previous research, then, is based on untested theory and numerical modeling. Therefore, the potential for a PHVI effect must be examined with empirical data obtained through rigorous experimental terms.

The significance of a PVHI effect depends on energy balance. Incoming solar energy typically is either reflected back to the atmosphere or absorbed, stored, and later re-radiated in the form of latent or sensible heat (Fig. 1)[20,21]. Within natural ecosystems, vegetation reduces heat gain and storage in soils by creating surface shading, though the degree of shading varies among plant types[22]. Energy absorbed by vegetation and surface soils can be released as latent heat in the transition of liquid water to water vapor to the atmosphere through evapotranspiration – the combined water loss from soils (evaporation) and vegetation (transpiration). This heat-dissipating latent energy exchange is dramatically reduced in a typical PV installation (Fig. 1 transition from A-to-B), potentially leading to greater heat absorption by soils in PV installations. This increased absorption, in turn, could increase soil temperatures and lead to greater sensible heat efflux from the soil in the form of radiation and convection. Additionally, PV panel surfaces absorb more solar insolation due to a decreased albedo[13,23,24]. PV panels will re-radiate most of this energy as longwave sensible heat and convert a lesser amount (~20%) of this energy into usable electricity. PV panels also allow some light energy to pass, which, again, in unvegetated soils will lead to greater heat absorption. This increased absorption could lead to greater sensible heat efflux from the soil that may be trapped under the PV panels. A PVHI effect would be the result of a detectable increase in sensible heat flux (atmospheric warming) resulting from an alteration in the balance of incoming and outgoing energy fluxes due to landscape transformation. Developing a full thermal model is challenging[17,18,25], and there are large uncertainties surrounding multiple terms including variations in albedo, cloud cover, seasonality in advection, and panel efficiency, which itself is dynamic and impacted by the local environment. These uncertainties are compounded by the lack of empirical data.

Figure 1: Illustration of midday energy exchange.



Assuming equal rates of incoming energy from the sun, a transition from (A) a vegetated ecosystem to (B) a photovoltaic (PV) power plant installation will significantly alter the energy flux dynamics of the area. Within natural ecosystems, vegetation reduces heat capture and storage in soils (orange arrows), and infiltrated water and vegetation release heat-dissipating latent energy fluxes in the transition of water-to-water vapor to the atmosphere through evapotranspiration (blue arrows). These latent heat fluxes are dramatically reduced in typical PV installations, leading to greater sensible heat fluxes (red arrows). Energy re-radiation from PV panels (brown arrow) and energy transferred to electricity (purple arrow) are also shown.

We addressed the paucity of direct quantification of a PVHI effect by simultaneously monitoring three sites that represent a natural desert ecosystem, the traditional built environment (parking lot surrounded by commercial buildings), and a PV power plant. We define a PVHI effect as the difference in ambient air temperature between the PV power plant and the desert landscape. Similarly, UHI is defined as the difference in temperature between the built environment and the desert. We reduced confounding effects of variability in local incoming energy, temperature, and precipitation by utilizing sites contained within a 1 km area.

At each site, we monitored air temperature continuously for over one year using aspirated temperature probes 2.5 m above the soil surface. Average annual temperature was 22.7 + 0.5 °C in the PV installation, while the nearby desert ecosystem was only 20.3 +

0.5 °C, indicating a PVHI effect. Temperature differences between areas varied significantly depending on time of day and month of the year (Fig. 2), but the PV installation was always greater than or equal in temperature to other sites. As is the case with the UHI effect in dryland regions, the PVHI effect delayed the cooling of ambient temperatures in the evening, yielding the most significant difference in overnight temperatures across all seasons. Annual average midnight temperatures were 19.3 + 0.6 °C in the PV installation, while the nearby desert ecosystem was only 15.8 + 0.6 °C. This PVHI effect was more significant in terms of actual degrees of warming (+3.5 °C) in warm months (Spring and Summer; Fig. 3, right).

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Figure 2: Average monthly ambient temperatures throughout a 24-hour period provide evidence of a photovoltaic heat island (PVHI) effect.

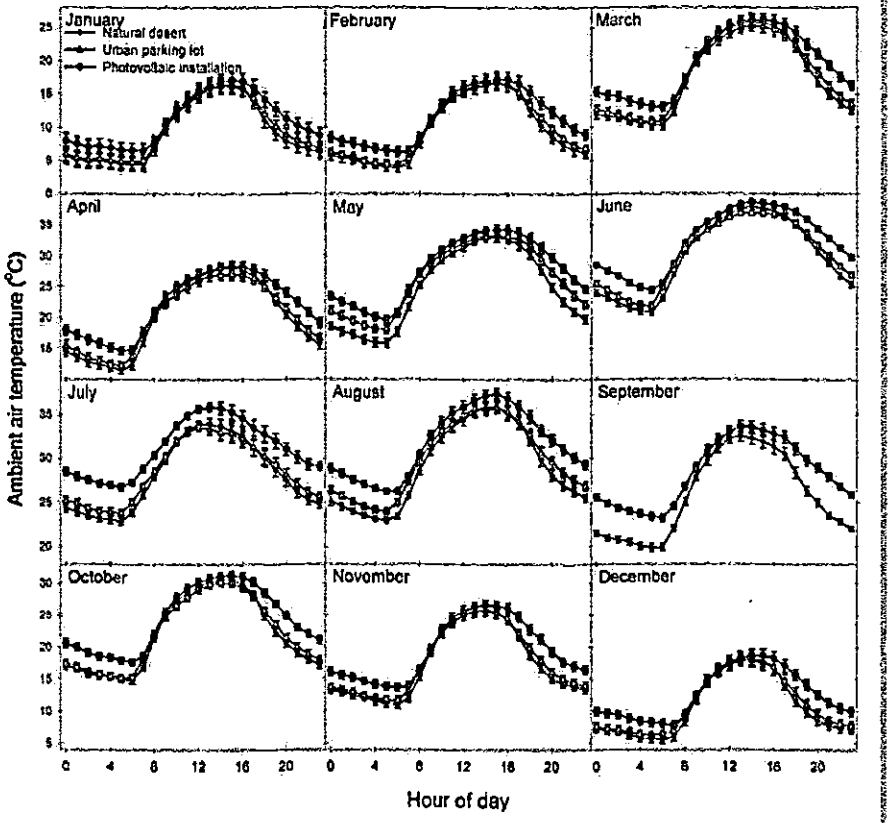
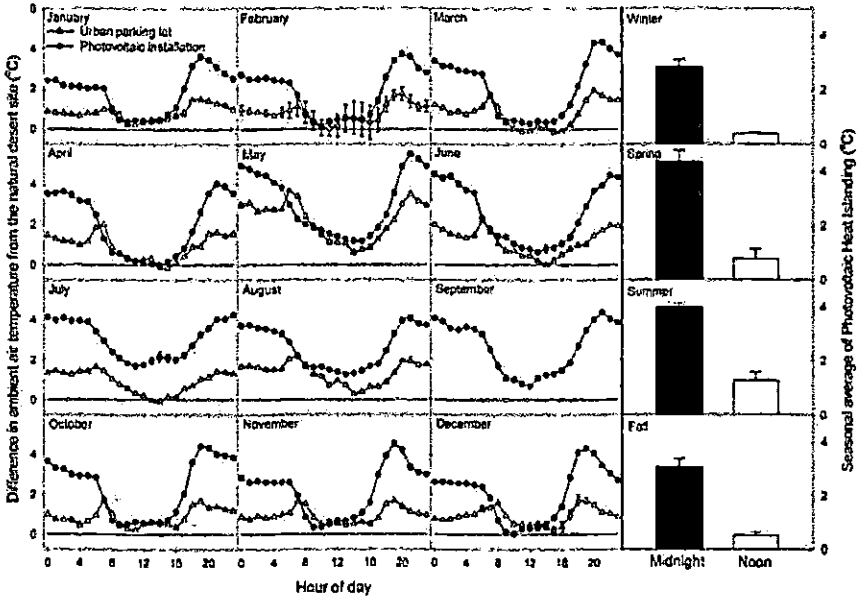


Figure 3



(Left) Average monthly levels of Photovoltaic Heat Islanding (ambient temperature difference between PV installation and desert) and Urban Heat Islanding (ambient temperature difference between the urban parking lot and the desert). (Right) Average night and day temperatures for four seasonal periods, illustrating a significant PVHI effect across all seasons, with the greatest influence on ambient temperatures at night.

In both PVHI and UHI scenarios, the greater amount of exposed ground surfaces compared to natural systems absorbs a larger proportion of high-energy, shortwave solar radiation during the day. Combined with minimal rates of heat-dissipating transpiration from vegetation, a proportionally higher amount of stored energy is reradiated as longwave radiation during the night in the form of sensible heat (Fig. 1)[15]. Because PV installations introduce shading with a material that, itself, should not store much incoming radiation, one might hypothesize that the effect of a PVHI effect would be lesser than that of a UHI. Here, we found that the difference in evening ambient air temperature was consistently greater between the PV installation and the desert site

than between the parking lot (UHI) and the desert site (Fig. 3). The PVHI effect caused ambient temperature to regularly approach or be in excess of 4 °C warmer than the natural desert in the evenings, essentially doubling the temperature increase due to UHI measured here. This more significant warming under the PVHI than the UHI may be due to heat trapping of re-radiated sensible heat flux under PV arrays at night. Daytime differences from the natural ecosystem were similar between the PV installation and urban parking lot areas, with the exception of the Spring and Summer months, when the PVHI effect was significantly greater than UHI in the day. During these warm seasons, average midnight temperatures were 25.5 + 0.5 °C in the PV installation and 23.2 + 0.5 °C in the parking lot, while the nearby desert ecosystem was only 21.4 + 0.5 °C.

The results presented here demonstrate that the PVHI effect is real and can significantly increase temperatures over PV power plant installations relative to nearby wildlands. More detailed measurements of the underlying causes of the PVHI effect, potential mitigation strategies, and the relative influence of PVHI in the context of the intrinsic carbon offsets from the use of this renewable energy are needed. Thus, we raise several new questions and highlight critical unknowns requiring future research.

What is the physical basis of land transformations that might cause a PVHI?

We hypothesize that the PVHI effect results from the effective transition in how energy moves in and out of a PV installation versus a natural ecosystem. However, measuring the individual components of an energy flux model remains a necessary task. These measurements are difficult and expensive but, nevertheless, are indispensable in identifying the relative influence of multiple potential drivers of the PVHI effect found here. Environmental conditions that determine patterns of ecosystem carbon, energy, and water dynamics are driven by the means through which incoming energy is reflected or absorbed. Because we lack fundamental knowledge of the changes in surface energy fluxes and microclimates of ecosystems undergoing this land use change, we have little ability to predict the implications in terms of carbon or water cycling[4,8].

What are the physical implications of a PVHI, and how do they vary by region?

The size of an UHI is determined by properties of the city, including total population[26,27,28], spatial extent, and the geographic location of that city[29,30,31]. We should, similarly, consider the spatial scale and geographic position of a PV installation when considering the presence and importance of the PVHI effect. Remote sensing could be coupled with ground-based measurements to determine the lateral and vertical extent of the PVHI effect. We could then determine if the size of the PVHI effect scales with some measure of the power plant (for example, panel density or spatial footprint) and whether or not a PVHI effect reaches surrounding areas like wildlands and neighborhoods. Given that different regions around the globe each have distinct background levels of vegetative ground cover and thermodynamic patterns of latent and sensible heat exchange, it is possible that a transition from a natural wildland to a typical PV power plant will have different outcomes than demonstrated here. The paucity in data on the physical effects of this important and growing land use and land cover change warrants more studies from representative ecosystems.

What are the human implications of a PVHI, and how might we mitigate these effects?

With the growing popularity of renewable energy production, the boundaries between residential areas and larger-scale PV installations are decreasing. In fact, closer proximity with residential areas is leading to increased calls for zoning and city planning codes for larger PV installations[32,33], and PVHI-based concerns over potential reductions in real estate value or health issues tied to Human Thermal Comfort (HTC)[34]. Mitigation of a PVHI effect through targeted revegetation could have synergistic effects in easing ecosystem degradation associated with development of a utility scale PV site and increasing the collective ecosystem services associated with an area[4]. But what are the best mitigation measures? What tradeoffs exist in terms of various means of revegetating

degraded PV installations? Can other albedo modifications be used to moderate the severity of the PVHI?

To fully contextualize these findings in terms of global warming, one needs to consider the relative significance of the (globally averaged) decrease in albedo due to PV power plants and their associated warming from the PVHI against the carbon dioxide emission reductions associated with PV power plants. The data presented here represents the first experimental and empirical examination of the presence of a heat island effect associated with PV power plants. An integrated approach to the physical and social dimensions of the PVHI is key in supporting decision-making regarding PV development.

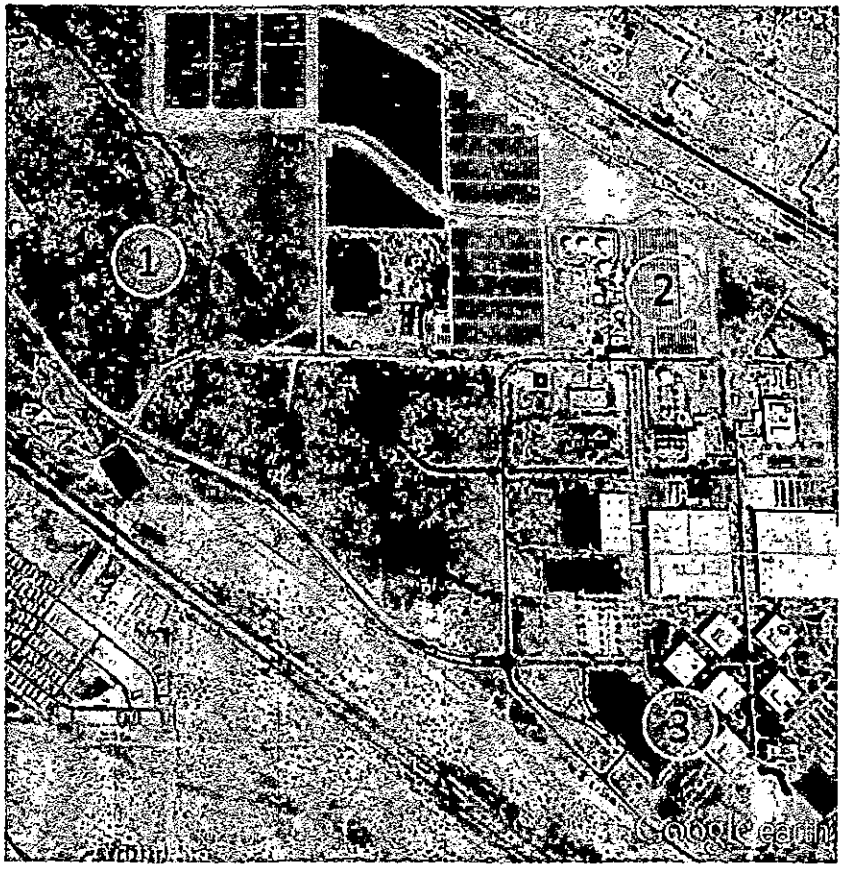
Methods

Site Description

We simultaneously monitored a suite of sites that represent the traditional built urban environment (a parking lot) and the transformation from a natural system (undeveloped desert) to a 1 MW PV power plant (Fig. 4; Map data: Google). To minimize confounding effects of variability in local incoming energy, temperature, and precipitation, we identified sites within a 1 km area. All sites were within the boundaries of the University of Arizona Science and Technology Park Solar Zone (32.092150°N, 110.808764°W; elevation: 888 m ASL). Within a 200 m diameter of the semiarid desert site's environmental monitoring station, the area is composed of a sparse mix of semiarid grasses (*Sporobolus wrightii*, *Eragrostis lehmanniana*, and *Muhlenbergia porteri*), cacti (*Opuntia* spp. and *Ferocactus* spp.), and occasional woody shrubs including creosote bush (*Larrea tridentata*), whitethorn acacia (*Acacia constricta*), and velvet mesquite (*Prosopis velutina*). The remaining area is bare soil. These species commonly co-occur on low elevation desert bajadas, creosote bush flats, and semiarid grasslands. The photovoltaic installation was put in place in early 2011, three full years prior when we initiated monitoring at the site. We maintained the measurement installations for one full year to capture seasonal variation due to sun angle and extremes associated with hot and cold periods. Panels rest on a single-axis tracker system that pivot east-to-west throughout

the day. A parking lot with associated building served as our "urban" site and is of comparable spatial scale as our PV site.

Figure 4: Experimental sites. Monitoring a (1) natural semiarid desert ecosystem, (2) solar (PV) photovoltaic installation, and (3) an "urban" parking lot – the typical source of urban heat islanding – within a 1 km^2 area enabled relative control for the incoming solar energy, allowing us to quantify variation in the localized temperature of these three environments over a year-long time period.



The Google Earth image shows the University of Arizona's Science and Technology Park's Solar Zone.

Monitoring Equipment & Variables Monitored

Ambient air temperature (°C) was measured with a shaded, aspirated temperature probe 2.5 m above the soil surface (Vaisala HMP60, Vaisala, Helsinki, Finland in the desert and Microdaq U23, Onset, Bourne, MA in the parking lot). Temperature probes were cross-validated for precision (closeness of temperature readings across all probes) at the onset of the experiment. Measurements of temperature were recorded at 30-minute intervals throughout a 24-hour day. Data were recorded on a data-logger (CR1000, Campbell Scientific, Logan, Utah or Microstation, Onset, Bourne, MA). Data from this instrument array is shown for a yearlong period from April 2014 through March 2015. Data from the parking lot was lost for September 2014 because of power supply issues with the datalogger.

Statistical analysis

Monthly averages of hourly (on-the-hour) data were used to compare across the natural semiarid desert, urban, and PV sites. A Photovoltaic Heat Island (PVHI) effect was calculated as differences in these hourly averages between the PV site and the natural desert site, and estimates of Urban Heat Island (UHI) effect was calculated as differences in hourly averages between the urban parking lot site and the natural desert site. We used midnight and noon values to examine maximum and minimum, respectively, differences in temperatures among the three measurement sites and to test for significance of heat islanding at these times. Comparisons among the sites were made using Tukey's honestly significant difference (HSD) test[35]. Standard errors to calculate HSD were made using pooled midnight and noon values across seasonal periods of winter (January-March), spring (April-June), summer (July-September), and fall (October-December). Seasonal analyses allowed us to identify variation throughout a yearlong period and relate patterns of PVHI or UHI effects with seasons of high or low average temperature to examine correlations between background environmental parameters and localized heat islanding.

Additional Information

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Contributions

G.A.B.-G., R.L.M. and N.A.A. established research sites and installed monitoring equipment. G.A.B.-G. directed research and R.L.M. conducted most site maintenance. G.A.B.-G., N.A.A., A.D.C. and M.A.P.-Z. led efforts to secure funding for the research. All authors discussed the results and contributed to the manuscript.

Competing interests

The authors declare no competing financial interests.

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Brook Trout



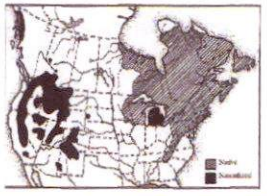
Scientific Name: *Salvelinus fontinalis:* the meaning of *Salvelinus* is not known; *fontinalis* means "living in springs".

Brook trout are part of the Salmon family and are actually char; they are related to Arctic char and lake trout. (**Note:** What is often sold in Baltimore as "lake trout" is not a trout at all but rather Atlantic whiting, a member of the cod family.) Char are distinguished from other trout by having light spots on a dark background and the absence of teeth on the roof of the mouth.

Other Names: Speckled trout, brookie

Range:

Brook trout are the only trout species native to Maryland. Their original range was from eastern Canada to eastern Minnesota and down the Appalachians as far south as Georgia. They have been introduced not only into other states but into other countries where they are sometimes considered an invasive species.



In Maryland they are found mainly in northern Baltimore County, the Catoctin Mountains in Frederick County, and in far western Maryland.

Appearance:

Unlike other trout found in Maryland, brook trout have light spots on a dark background instead of the other way around. Breeding males are dark olive on top, shading to orange on the lower side and then to cream on the belly. The spots on the back tend to be worm-shaped; the spots on the sides below the lateral line are red with a light blue halo around them. The pectoral, pelvic and anal fins have a white leading edge bordered with a black stripe; the rest of the fin is orange-red. Non-breeding adults are similarly colored but less vivid; the red spots and the orange sides may be paler or absent.

Brook trout are fairly small trout, usually reaching a maximum length of about 10 inches and weighing about 10 ounces. The world record brookie weighed 14 pounds 8 ounces and was 33 inches long caught in Ontario in 1915; the Maryland record is a fish weighing 6 pounds 2 ounces caught in the North Branch of the Potomac in 1999.

Habitat:

Brook trout prefer clean, cold, rocky streams with plenty of shade, and well-oxygenated water. They do best in water that does not exceed 20° C (68° F). They are less tolerant of warm water than other trout, although adult fish can tolerate temperatures up to 25° C (77° F) for a very short time. However, they are more tolerant of low pH than other trout and can reproduce in water with a pH as low as 4.5, although the preferred pH range is 5 to 7.5.

Diet:

The diet of brookies consists of anything that fits in their mouths and is easy to catch. The most common food items are aquatic insects, both larvae and adults, land insects that fall in the water, and small fish. They also eat worms, mollusks, crustaceans, amphibians, and small reptiles and mammals. They are sight feeders and tend to feed mainly at dawn and dusk; during mid-day, they seek deeper water or shaded areas.

Predation:

Brook trout are preyed upon by larger fish, including other trout, water snakes, birds (kingfishers, great blue herons) mink, otters and raccoons.

Reproduction:

On average, brook trout reach sexual maturity around the age of 2 and spawn each year. Spawning is triggered by decreasing water temperature and day length; in Maryland most spawning takes place in late October and early November. The female uses her caudal fin to clear an area in the gravel called a "redd" where she lays 300 to 600 eggs. Once fertilized, the eggs sink to the bottom of the redd and the female covers them with gravel. The eggs remain buried over the winter and hatch out in the early spring. Most brookies only live about 5 years although occasionally they may live as long as 9 years.

Threats:

One of the biggest threats to native brook trout populations is the introduction of non-native brown trout. Brown trout tend to be bigger than brookies and are more aggressive and as a result, they out-compete brook trout for food and spawning sites. They also routinely prey on brook trout.

Other threats to brook trout include increased water temperatures in trout streams caused by deforestation in the watershed, removal of streamside vegetation, and water releases from dams. Decreased pH due to acid rain and acid mine drainage also contributes to the decline of brook trout populations.

SPORT FISH RESTORATION

MARYLAND DEPARTMENT OF NATURAL RESOURCES

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Too much dirt in the water can affect brook trout populations by decreasing the dissolved oxygen, smothering eggs and fry in the redds, and reducing the production of food organisms. Since brook trout are sight feeders, they are affected by even a little bit of turbidity because it reduces their ability to see their food.

Brook trout are the "canaries in the coal mine"; they serve as indicators of the health of the watershed. A decline in brook trout populations may be a warning that the entire watershed is in trouble.

Brook trout are the only trout in Maryland for which a Fisheries Management Plan was written. www.dnr.state.md.us/fisheries/pdfs/MDBrookTrout006.pdf

For an excellent video on brook trout go to:
http://www.fws.gov/northeast/multimedia/video/brooktrout.html

SPORT FISH RESTORATION

MARYLAND
DEPARTMENT OF NATURAL RESOURCES

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Journal
North American Journal of Fisheries Management ›
Volume 28, 2008 - Issue 4

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Article

Brook Trout Declines with Land Cover and Temperature Changes in Maryland

Scott A. Stranko, Robert H. Hilderbrand, Raymond P. Morgan II, Mark W. Staley, Andrew J. Becker, Ann Roseberry-Lincoln, ...show all

Pages 1223-1232 | Received 22 Feb 2007, Accepted 02 Jan 2008, Published online: 09 Jan 2011

Download citation https://doi.org/10.1577/M07-032.1

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Abstract

We examined the influence of landscape alteration and in situ stream habitat variables on brook trout Salvelinus fontinalis by using a landscape-scale, space-for-time substitution analysis and a smaller data set that tracked long-term changes in land use over time. Forested land cover within a catchment was the overall best landscape-scale predictor of brook trout occurrence at a given site; measures of impervious land cover and urbanization were also important predictors. Brook trout were almost never found in watersheds where impervious land cover exceeded 4%, as assessed from the 2001 National Land Cover Dataset (2001 NLCD); the single exception was in a stream that displayed consistently low water temperatures. Landscape-scale analyses indicated that increases in water temperature and erosion were associated with

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coinciding with increases in urbanization and impervious land cover. At these sites, water temperatures were substantially greater than at the three sites with extant brook trout. Land use amounts derived from high-resolution aerial photography showed substantially greater amounts of urbanization and particularly impervious land cover than did amounts derived from the 2001 NLCD. The differences in measured land cover between imagery types warrant caution when stating upper threshold limits of land cover, because use of imagery methods interchangeably may produce inconsistent results. Our findings suggest that brook trout are very sensitive to landscape alterations in Maryland and disappear at low levels of impervious land cover regardless of the specific mechanism involved.

Login options

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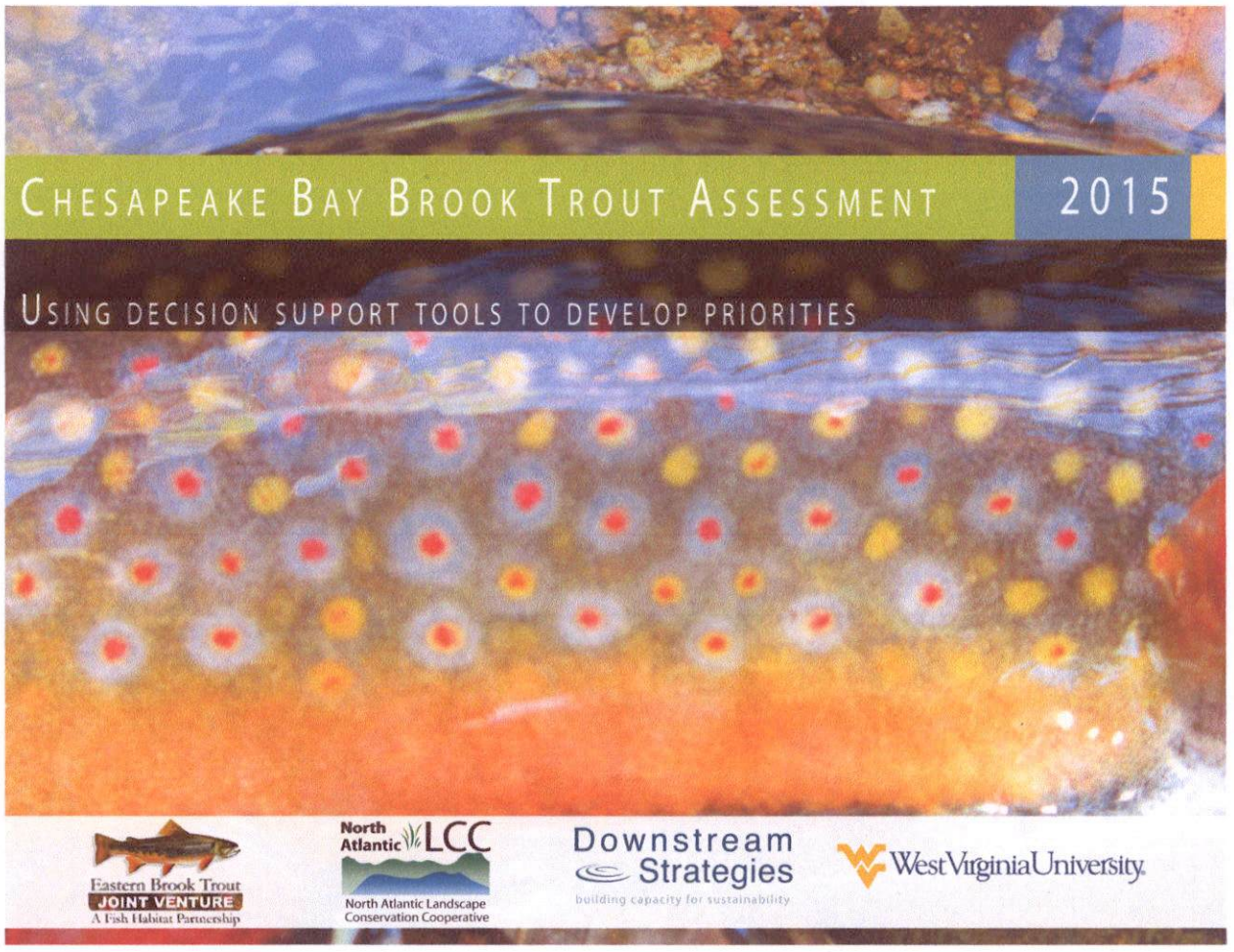

INTRODUCTION

Healthy waterways and vigorous populations of fish provide clean water, vibrant economies, and numerous recreational opportunities to millions of people in the eastern United States. To more sustainably manage these resources across large geographic areas, there is a pressing need to characterize the status, habitat, and threats to fish and other aquatic species. This document provides the details of such an assessment performed for brook trout in Chesapeake Bay watershed.

Brook trout symbolize healthy water because they rely on cold, clean water and are sensitive to habitat and water quality impacts.

They are an essential part of the headwater stream ecosystem, and are an important part of the upper watershed's natural heritage and a valuable recreational resource.

This assessment provides datasets in combination with innovative tools to characterize current and future aquatic conditions, target and prescribe restoration and conservation actions, set strategic priorities, evaluate management efforts, and advocate for science-based sustainable management plans.

WHAT IS A CATCHMENT?

A catchment, as defined by the NHD+ data utilized for this effort, is the land area draining directly to a single stream segment. Stream segments were defined by 1:100k USGS topographic maps.

Assessment objectives

1. Develop models to estimate the probability of brook trout occurrence in catchments throughout the Chesapeake Bay watershed
2. Calculate measures of underlying natural habitat quality and anthropogenic stress
3. Assess future climate scenarios and the potential impact to brook trout populations
4. Provide decision support tools to facilitate visualization of data and results, prioritize conservation and restoration actions, and estimate brook trout

Assessment Components

Current Conditions

Fish surveys from 3,284 catchments (small watersheds) during 1995 to 2013 were used to predict the likelihood that brook trout were present across the Chesapeake Bay watershed. Of the total 51,474 catchments in the watershed, there were over 9,500 catchments with a predicted probability of occurence greater than 75%, and over 6,000 catchments with a probability of occurence between 50% and 75%. Refer to the map on page 6.

Natural Quality Index

The natural habitat quality index provides baseline information on the optimal potential condition of a catchment. Natural quality is defined as the maximum probability of occurence under a zero-stress situation; essentially, the highest attainable condition in the catchment. Refer to the map on page 7.

Top three most influential natural factors:
1. Mean July stream temperature
2. Slope
3. Mean annual precipitation

Anthropogenic Stress

The stress index quantifies impacts from anthropogenic process on aquatic habitat conditions at the catchment scale. Higher stress values indicate a larger change in predicted probability of occurence after removing stress, and lower stress values indicated that the catchment was relatively unaffected by removing stress.

Top three most influential stress factors:
1. Cumulative impervious surface
2. Cumulative agricultural landcover
3. Cumulative percent of past mining activities

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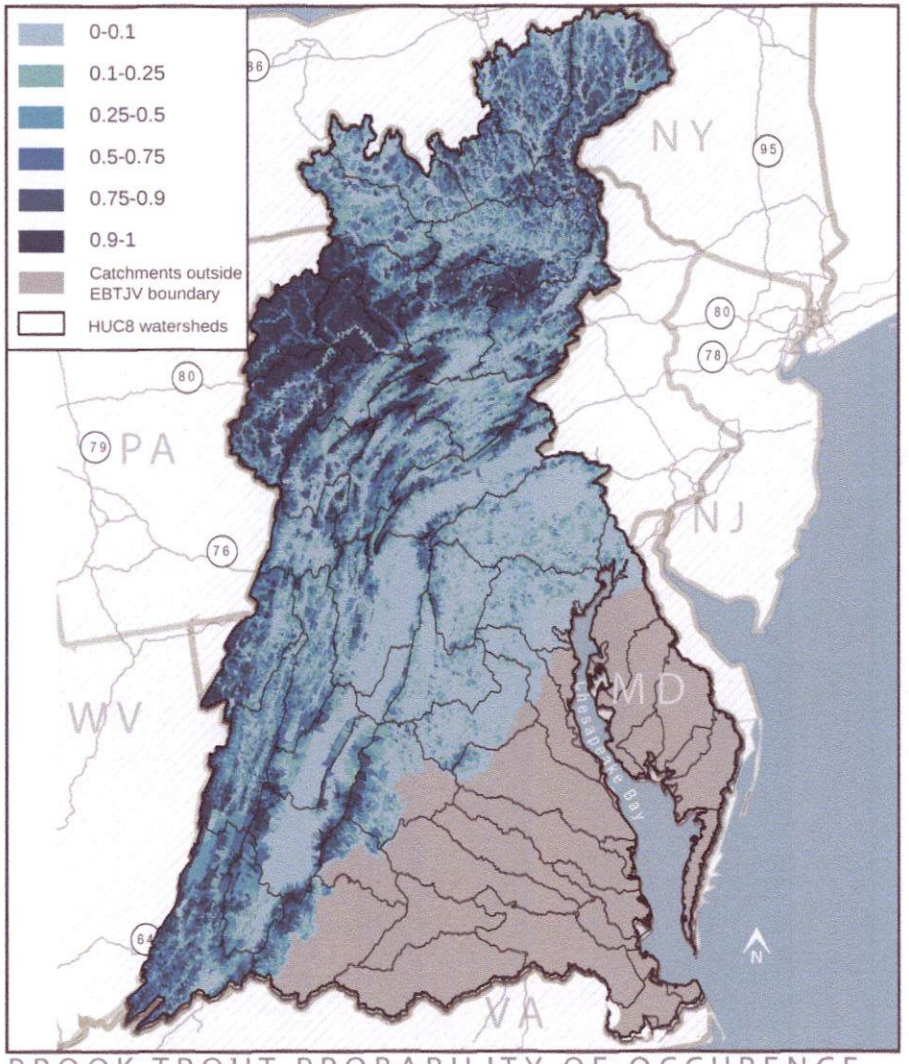
CURRENT CONDITIONS



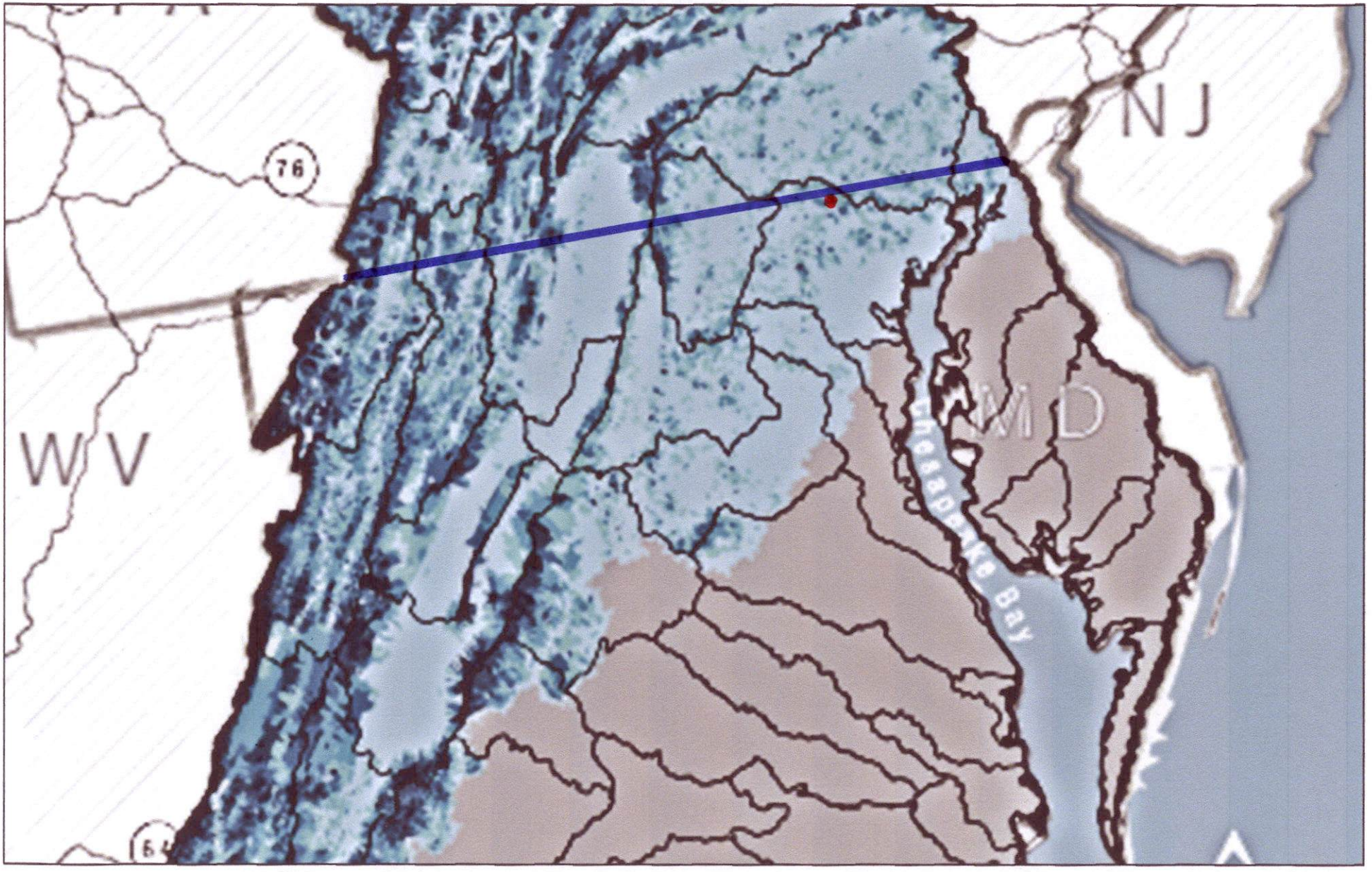
BROOK TROUT PROBABILITY OF OCCURENCE

Current conditions are predicted by building a BRT model that predicts probability of occurrence for brook trout throughout the portion of Eastern Brook Trout Joint Venture (EBTJV) range within the Chesapeake Bay watershed. The modeling process begins by collecting and processing predictor data (landscape and environmental) and response data (brook trout location data) for the region. These datasets are then used in the model to derive the relationships between the habitat and probability of occurrence. The model is developed at the 1:100k-catchment scale, producing a map of predicted brook trout occurrence for each catchment, on a scale from 0 (no probability) to 1 (very high probability).

Of the 51,474 catchments in the Chesapeake Bay watershed and also within the historic range of eastern brook trout, there were 9,605 catchments with a predicted probability of occurence greater than 0.75 and 6,279 catchments where the probability of occurence was between 0.5 and 0.75. These results are mapped on this page.

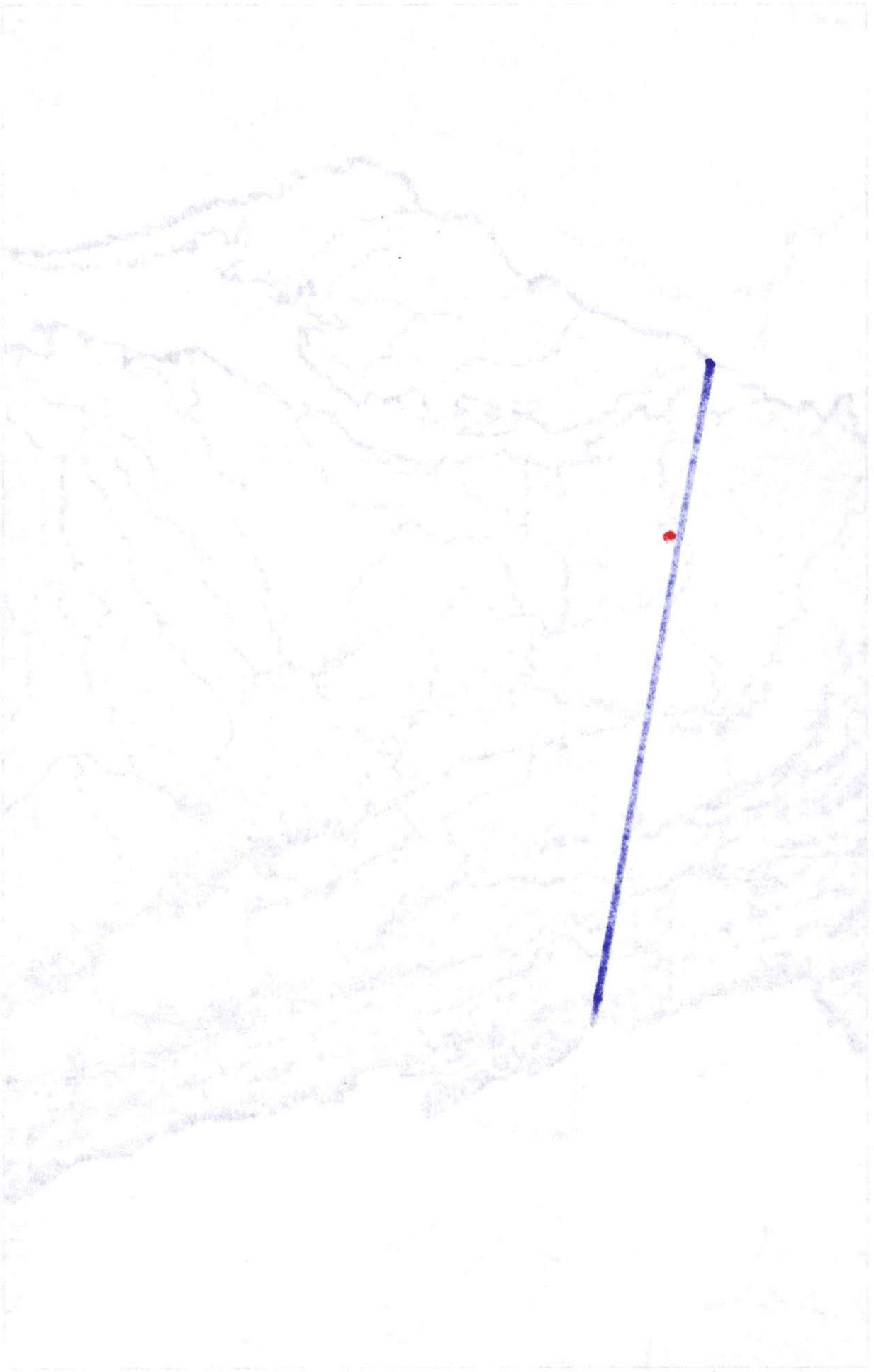
Variable Description	Relative Influence
Mean July Stream Temperature (predicted)	42.7%
Mean network imperviousness	21.6%
Network percent agricultural landcover	9.7%
Slope of catchment flowline	7.5%
Mean annual precipitation	6.6%
Log of network percent grassland cover	2.6%
Catchment soil pH	2.5%
Network percent acidic geology	2.5%
Log of network percent past mining areas	2.3%
Log of network percent wetland cover	2.1%

Modeled stream temperature, which represents a natural habitat quality variable, was the single most important predictor variable in the model with a relative influence of 43%. The next most important predictor was an anthropogenic stressor (mean network imperviousness) with a relative influence of 22%. The table above shows the other modeled variables and their influence on predicting brook trout occurrence.



Detail of previous page

Red dot is area of proposed solar facility on Oakland Rd, Freeland, MD.



§ 33-3-101. - DEFINITIONS.

(a) *In general.* In this title the following words have the meanings indicated.

(b) *Agricultural operation.* "Agricultural operation" means properties used for the production of agricultural products in accordance with a soil conservation and water quality plan approved by the County Soil Conservation District.

(c) *Agriculture.*

(1) "Agriculture" means all methods of production, processing, storage, and management of livestock, crops, vegetation, and soil.

(2) "Agriculture" includes:

(i) The related activities of tillage, fertilization, pest control, harvesting, and marketing; and

(ii) The activities of feeding, housing, maintaining animals, including cattle, dairy cows, sheep, goats, hogs, horses, and poultry and handling their by-products.

(d) *Applicant.*

(1) "Applicant" means a person requesting approval of development under this title or Article 32, Title 4 of the Code.

(2) "Applicant" includes an owner, contract purchaser, or the legally authorized representative of either.

(e) *Best management practices (BMPs).* "Best management practices (BMPs)" means conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal wastes, toxins, sediment, and runoff.

(f) *Department.* "Department" means the Department of Environmental Protection and Sustainability.

(g) *Development.* "Development" means:

(1) The improvement of property for any purpose involving building;

(2) Subdivision;

(3) The combination of any two or more lots, tracts, or parcels of property for any purpose;

(4) Subjecting property to the provisions of the Maryland Condominium Act; and

(5) The preparation of land for any of the purposes listed in items (1) through (4) of this subsection.

(h) *Forest buffer.*

(1) "Forest buffer" means a wooded area that exists or is established to protect a stream system.

(2) "Forest buffer" includes trees, shrubs, and herbaceous vegetation.

(i) *Plan.* "Plan" means a written and graphic representation of all proposed development, forest harvesting operations, surface mining operations, agricultural operations, and other land use activities not otherwise exempt from the provisions of this title that is prepared in accordance with § 33-3-108 of this title.

(j) *Pollutant.* "Pollutant" means:

(1) Any waste or wastewater that is discharged from:

(i) Any publicly-owned treatment works, or

(ii) An industrial source; or

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(2) Any other liquid, gaseous, solid, or other substance that will pollute any waters of this state.

(k) *Public improvement.* "Public improvement" means any improvement, facility, or service together with its associated public site or right-of-way necessary to provide transportation, drainage, public or private utilities, energy, or similar essential services.

(l) *Waste.* "Waste" means industrial waste and all other liquid, gaseous, solid, and other substances that will pollute any waters of this state.

(m) *Wastewater.* "Wastewater" means:

(1) Liquid waste substance derived from industrial, commercial, municipal, residential, agricultural, recreational, or other operations or establishments; or

(2) Other liquid waste substance containing liquid, gaseous, or solid matter and having characteristics that will pollute any waters of this state.

(1988 Code, § 14-336) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 10-96, § 3, 3-23-1996; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, § 13, 1-16-2011)

§ 33-3-108. - PLAN INFORMATION.

(a) *Required.* In accordance with § 33-3-104 of this title or Article 32, Title 4 of the Code, a plan approved by the Department is required for all development, forest harvesting operations, surface mining operations, and agricultural operations.

(b) *Details of plan — In general.* The plan shall include an informative, conceptual, and schematic representation of the proposed activity by means of maps, graphs, charts, or other written or drawn documents to enable the Department to make a reasonably informed decision regarding the proposed activity.

(c) *Same — Specific requirements.* The plan shall contain the following information:

(1) A location or vicinity map;

(2) Property lines;

(3) Existing structures or facilities, including buildings, roads, wells, and sewage disposal systems (include 100 feet into adjacent properties where possible);

(4) Existing and proposed contour lines;

(5) Proposed sewage disposal areas;

(6) Field delineated, marked, and surveyed streams, springs, seeps, bodies of water, and wetlands (include 200 feet into adjacent properties where possible);

(7) Field delineated, marked, and surveyed forest buffers;

(8) Department of Public Works approved riverine floodplain limits;

(9) Soils mapped and labeled in accordance with the soil survey of the county;

(10) (i) Slopes greater than 10% for areas adjacent to and within 500 feet of streams, wetlands, or other bodies of water; and

(ii) Slopes greater than 25% for all other areas;

(11) Rare species, threatened species, or endangered species habitat;

(12) Existing vegetation;

(13) Location and type of stormwater management devices and practices;

(14) Building envelopes;

(15) Existing and proposed utility lines and easements;

(16) Historical and archaeological sites;

(17) A note indicating: "There shall be no clearing, grading, construction or disturbance of vegetation in the forest buffer, except as permitted by the Baltimore County Department of Environmental Protection and Sustainability"; and

(18) Supporting documentation for variance requests, including alternatives analyses and conceptual mitigation plans.

(1988 Code, § 14-338) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, § 13, 1-16-2011)

§ 33-3-109. - APPROVAL OF PERMITS.

(a) *Compliance determination.* Before the Department of Permits, Approvals and Inspections may issue any grading permit or building permit or before the approval of any erosion and sediment control plan, the Director of Environmental Protection and Sustainability or the Director's designee shall determine that the proposed development is in compliance with the provisions of this title.

(b) *No permit.* A permit may not be issued without compliance with this title.

(1988 Code, § 14-339) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, §§ 13, 30, 1-16-2011; Bill No. 72-12, § 1, 1-9-2013)

DONALD I. MOHLER III
County Executive

ANDREA VAN ARSDALE, *Director*
Department of Planning

August 1, 2018

The Honorable Julian E. Jones, Jr.
Chairman, Baltimore County Council
Historic Courthouse
400 Washington Avenue
Towson, MD 21204

RE: County Council Bill 37-17: Solar Facilities

Dear Chairman Jones:

At the May 17, 2018 meeting of the Baltimore County Planning Board, an evaluation of the impacts of solar facilities in Baltimore County pursuant to County Council Bill 37-17 was presented by Department of Planning staff. A Public Hearing followed on June 7, 2018 and was well attended by the community. At its July 19, 2018 meeting, the Planning Board voted to forward these recommendations on solar facilities to the Baltimore County Council and to the County Executive.

The following recommendations are now offered by the Planning Board:

The Planning Board recognizes that the development of solar power and other renewable sources of energy is critical for our future, however;

- Solar facilities should not be permitted on prime and productive soils;
- Solar facilities should be directed into business and manufacturing zones, brownfields, rooftops and parking lots where financially feasible;
- Further in-depth study of how other similar jurisdictions have responded to the use should be considered in a review of the current law;
- The feasibility of establishing locational criteria to determine appropriate siting of solar facilities should be investigated;
- Solar facilities should not be detrimental to scenic views or routes; and
- Participation in future studies should be broadened to include stakeholders from each Councilmanic District.

105 West Chesapeake Avenue, Suite 101 | Towson, Maryland 21204 | Phone: 410-887-3211 | Fax: 410-887-5862
planning@baltimorecountymd.gov | www.baltimorecountymd.gov/planning

Date: July 30, 2018

If you have any questions regarding these recommendations please contact me at 410-887-3211.

Sincerely,

Andrea Van Arsdale
Secretary to the Planning Board

AVA:jdd

Enclosures

c: Members, Baltimore County Council
Members, Baltimore County Planning Board
Thomas Peddicord, Jr., Legislative Counsel/Secretary
Lauren M. Smelkinson, County Auditor
Fred Homan, Administrative Officer
Arnold Jablon, Deputy Administrative Officer and Director, Permits, Approvals, and Inspections
Donna Morrison, Deputy Administrative Officer
Mike Field, County Attorney

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Photo by Robert Rohe; Eagles in tree across field from his house; looking ~~towards~~ BETWEEN Oakland Rd. & ORWIG RD

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Photo by Robert Rohe, view from his property facing west towards proposed solar site. Oakland Rd is at base of treeline.
(LEFT SIDE)

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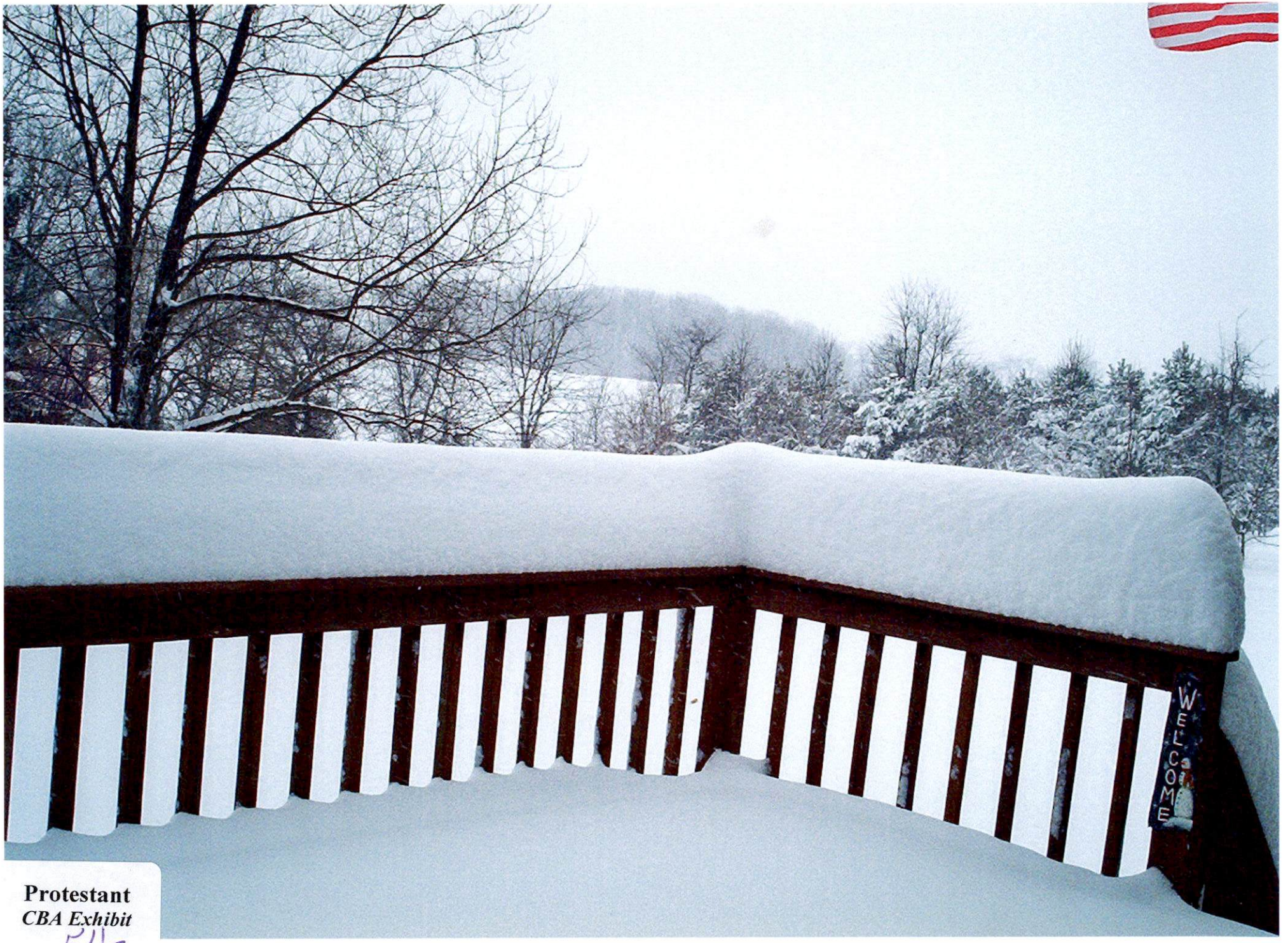

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Photo taken 8-30-2010 by Robert Rohe

North County
Community Group

THE NORTH COUNTY COMMUNITY GROUP, LLC

RESOLVED: That the ANNUAL MEETING of the North County Community Group, LLC held on January 23, 2018, it was decided that responsibility for review and action on all zoning and development matters for the period 2018-2019 be placed on Kathleen Pieper, Wanda Lehman and Mary Petrucci.

ATTEST: The North County Community Group, LLC

President
Kathleen Pieper

Treasurer
Wanda Lehman

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North County
Community Group

AFFIDAVIT

STATE OF MARYLAND
BALTIMORE COUNTY

TO WIT:

I hereby swear upon penalty of perjury that I, Wanda Lehman, am currently a duly elected member of the Board of Directors of The North County Community Group, LLC.

AS WITNESS OUR HANDS AND SEAL THIS 23rd DAY OF January 2018.

ATTEST: The North County Community Group, LLC

President
Kathleen Pieper

Treasurer
Wanda Lehman

North County
Community Group

NORTH COUNTY COMMUNITY GROUP, LLC.

A grassroots, all-volunteer organization, formed to protect the quality of life, resources, rural landscape, scenic byways and property values in northern Baltimore County.

Resolved: That the position of the North County Community Group as adopted by the Board of Directors on the zoning matter known as: 632 Freeland Road Road Special Exception Request for a Solar Facility (Case Number 2018-0194-X) is OPPOSED.

The North County Community Group believes that 632 Freeland Road is a particularly problematic location for an industrial solar facility, and that there are other sites which do not have such prime soils or scenic and environmental qualities which could potentially be suitable for solar facilities. We feel there are facts and circumstances regarding this case that show adverse effects above and beyond those inherently associated with such a special exception use, and that the use is inconsistent with the Baltimore County Master Plan and certain conditions contained in Section 502.1 of the Baltimore County Zoning Regulations:

(A) Be detrimental to the general welfare of the locality involved

Adjacent neighbors and all northern Baltimore County Community groups oppose this request because of the detrimental impacts to the community and agricultural economy. The proposed site includes a significantly higher percentage of prime soils than is typically found throughout northern Baltimore County. The property has been farmed for over 100 years and includes soils that are exceptionally productive. Utilization of this site for industrial solar generation would remove top tier prime acreage from food production, reduce the tenant farmer's tillable land base and detrimentally impact property values for surrounding residents.

(G) Be inconsistent with the purposes of the property's zoning classification nor in any other way inconsistent with the spirit and intent of these Zoning Regulations

The RC 2 (agricultural) zone was designed to protect soils and farms. Prime farmland is a natural and finite resource that is rapidly being depleted. Utilization of this site for industrial solar generation would convert premium quality farmland to a nonagricultural use – inconsistent with the Farmland Protection Policy Act (FPPA).

The proposed site is located along two designated scenic by-ways and features "expansive" viewsheds, as the term is defined within the Comprehensive Manual of Development Policies (CMDP page 177). Views from Oakland Road and adjoining properties would be significantly impaired by thousands of solar panels over the rolling terrain, and metal security fencing that would surround the paneled area. *"For properties along scenic routes or within watersheds, variances, amendments and special exceptions should be granted sparingly." (*Baltimore County Master Plan 2020, page 101.)

North County Community Group

(l) Be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5 or R.C.7 Zone, and for consideration of a solar facility use under Article 4F, the inclusion of the R.C. 3, R.C. 6, and R.C. 8 Zones.

Supportive evidence that an industrial solar facility on 632 Freeland Road would not be detrimental to the environmental and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in all resource conservation zones is required before a special exception may be granted. No supportive evidence has been provided for the following sections of the BCZR:

32-4-414. – FLOODPLAIN AND WETLAND PROTECTION
"Protect or enhance the environmental quality of watersheds."

32-4-415. - SLOPE PROTECTION AND SOILS
"On prime and productive soils within the RC-2 zone, the county may not approve a Development Plan or plat unless the county finds that construction, excavations, buildings, structures, pavements, grading, clearing, or other disturbances of the soils will be limited or restricted in accordance with policies established by the Department of Environmental Protection and Sustainability to promote agricultural uses and protect the county's soil resources."

The proposed site is within the Loch Raven watershed and includes Class IIIP headwater springs and streams that flow directly into the Gunpowder River. The Department of Natural Resources has identified this property as an unprotected Targeted Ecological Area (TEA) for rating among the "Best of the Best" in ecological value to the state of Maryland. It is a top priority for Project Open Space funding. Placing thousands of solar panels at the highest elevations of the property will increase runoff through the forest buffer and stress the watershed ecosystem. *"Land use activities within watersheds affect the water quality of streams and downstream water bodies."* (Code of Maryland Regulations (COMAR) 26.08.02.07).

We therefore recommend that the special exception request for a solar facility at 632 Freeland Road be DENIED.

As witness our hands and seal this November 22, 2018.

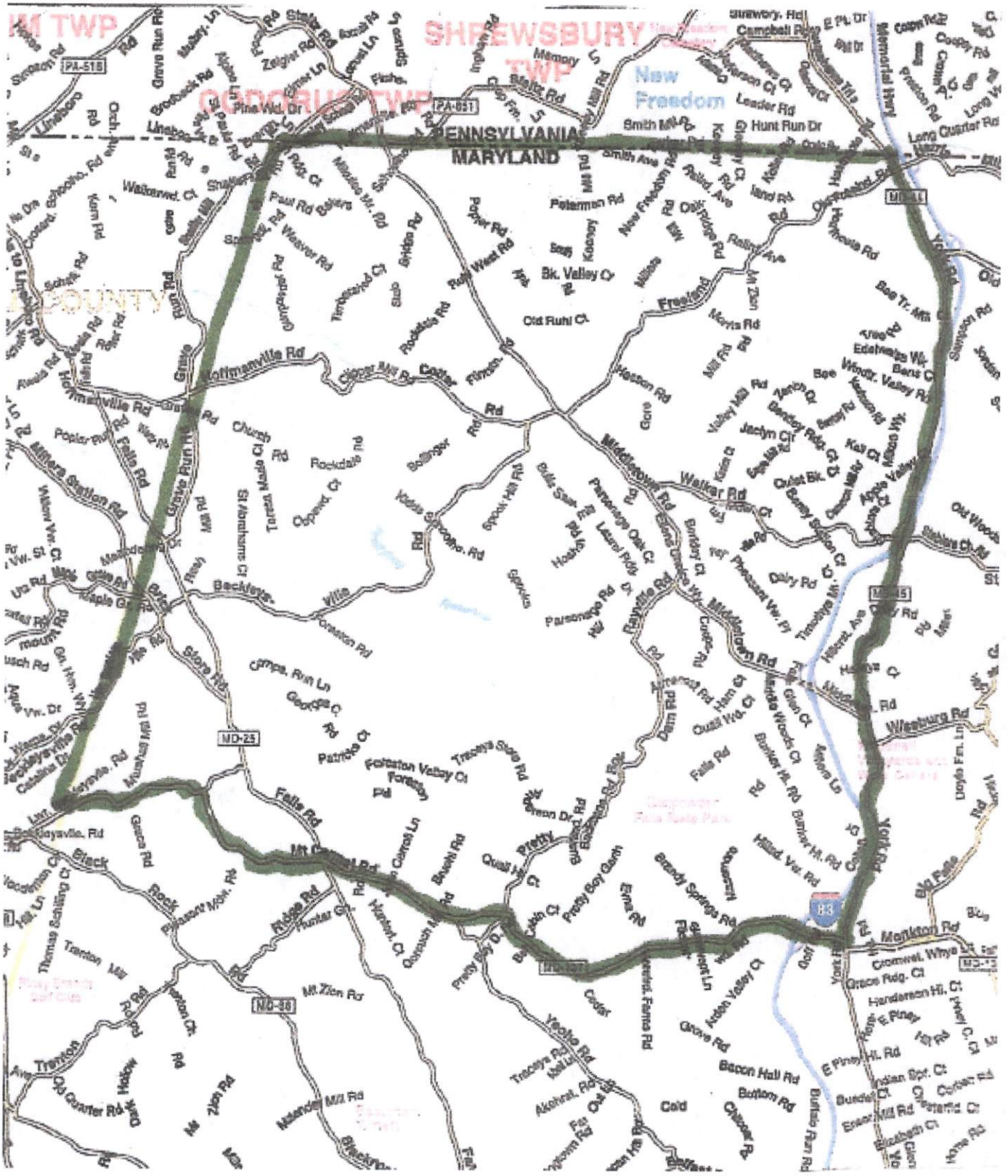
ATTEST: North County Community Group, LLC.

Treasurer

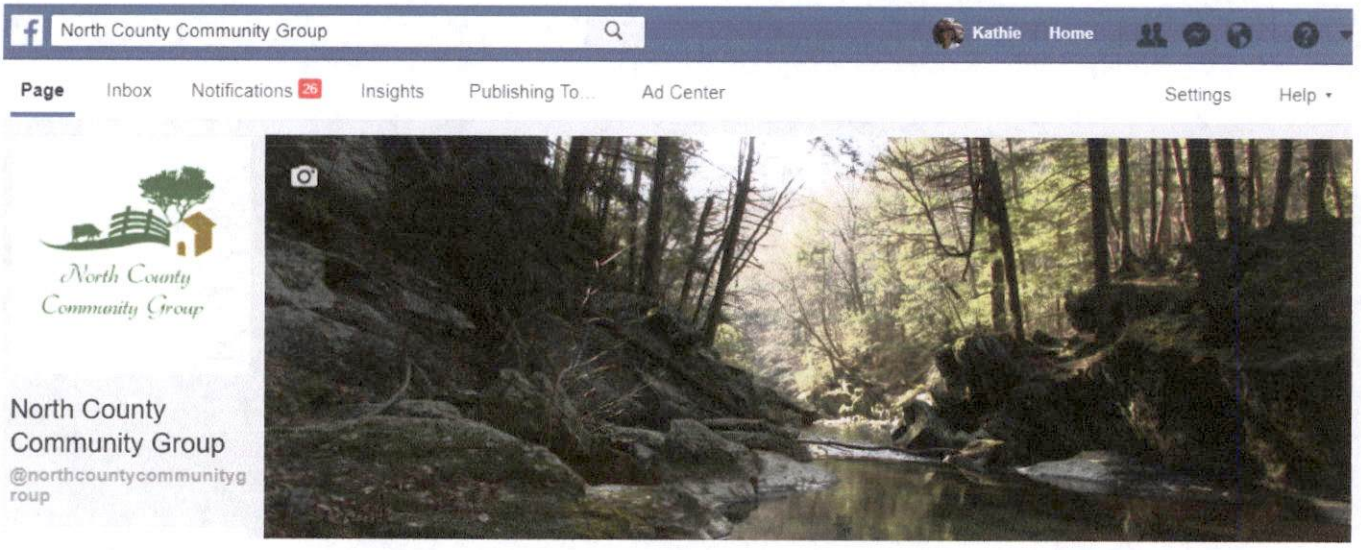
President

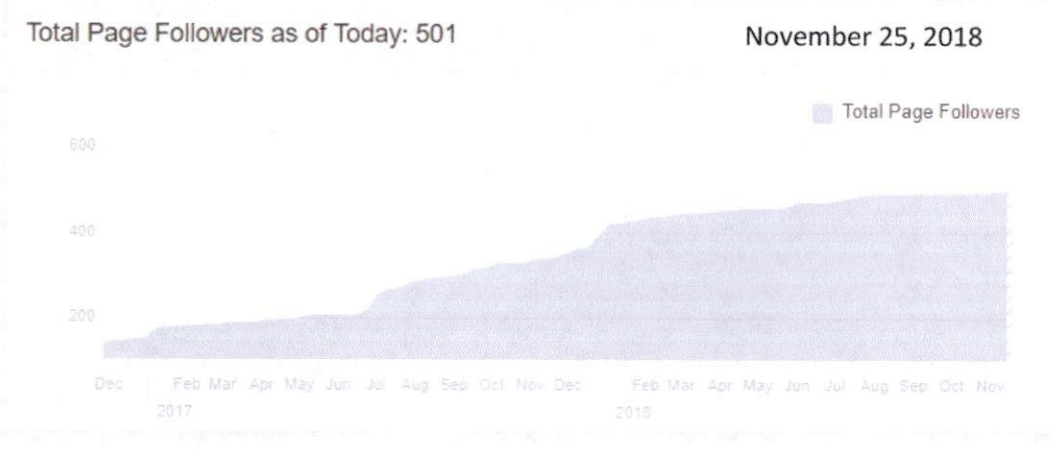
North County Community Group




PENNSYLVANIA
MARYLAND
SHREWSBURY TWP
New Freedom
Smith Mill Rd
Hunt Run Dr
Leader Rd
Campbell Rd
Peterman Rd
Bk. Valley Ct
Old Ruhl Ct
Freeland
Hoffmansville Rd
Glades Church Rd
Rockdale Rd
Middletown Rd
Walker Rd
Daisy Rd
Pleasant Vw. Dr
Raynette Rd
Weisburg Rd
Falls Rd
Mt Carmel Rd
Ridge Rd
Mt Zion Rd
MD-25
MD-136
MD-45
MD-83
Mankton Rd
Trenton Ave
Old Quarter Rd
Malanda Mill Rd
Bacon Hall Rd
Bottom Rd
Cold
Yeolie Rd
Tracys Rd
Grove Rd
Ardon Valley Ct
Emma Rd
Brandy Springs Rd
Pretty Boy Dr
Pretty Boy Garth
Quail Hollow Ct
Cabin Ct
Bowen Rd
Tracys Store Rd
Forbston Valley Ct
Patricia Ct
Georgia Ct
Campus Run Ln
Store Rd
Beckleys Villa
Creston Rd
Maple Grove Rd
Mount Rd
Millers Station Rd
Grave Run Rd
Poplar Run Rd
Church Rd
Rockdale Rd
Bollinger
Spook Hill Rd
Parsonage Rd
Hoshor
Laurel Ridge Dr
Pheasant Oak Ct
Bunkley Ct
Quiet Bk.
Quiet Bk. Ct
Daisy Stetson Ct
Apple Valley
Old Woods
Bishop Ct Rd
Timothye Ln
Hazel Ave
Maple Ave
Glen Ct
Hazelle Woods Ct
Bonnie Hi. Rd
Barrister Hi. Rd
Hillside Vw. Rd
Old Falls
York Rd
Cromwell Whys
Grace Ridg. Ct
Henderson Hi. Ct
E Piney Hi. Rd
Indian Spr. Ct
Bundle Ct
Bundle Run Rd
Chestnut Ct
Elmer Mill Rd
Elizabeth Ct
Horse Rd
Dam Rd
Hillcrest Rd
Ham Ct
Quail Wd. Ct
Fallen Oak Rd
Ridgeview Rd
Ridge Ct
Meadow Ridge Ct
Jaclyn Ct
Valley Mill Rd
Zach Ct
Beverly Ridge Ct
Kait Ct
Mikaia Wy.
Windsr. Valley Rd
Edelweiss Wy.
Bee Tr. Mtn
Morris Rd
Mill Rd
Hesson Rd
Glade
Cutter
Flinch.
Clipper Mill Rd
Hoffmansville Rd
Grube
Rockdale Rd
Ruhl West Rd
Porter Rd
Sally
Kearney
Mikaia
Mill Rd
New Freedom Rd
Oak Ridge Rd
Ridge Ave
Hollowbrook Rd
Hillcrest Farms Rd
Mill Rd
Smith Ave
Paul Rd
Baker
Weaver Rd
Campbell Rd
Timberland Ct
Sable
Bridle Rd
Mistletoe Wy. Rd
Schaeffer Rd
Walkerwd. Ct
Shaffer Mill Rd
Orchard Schoolhouse Rd
Kurn Rd
Schaeffer Rd
Rawls Rd
Reist Rd
Schaeffer Rd
Lineboro Rd
Orch.
Lineboro
Pine Wld. Dr
Zeigler Rd
Fisher
Memory Ln
Bailey Rd
Mill Rd
Campbell Ridge
E Pk. Dr
Bell Dr
Cooley Rd
Cooley Ct
Cooley Pl
Preston Rd
Memorial Hwy
Long Quarter Rd
Grove Run Rd
Mallory Ln
Brodbeck Rd
Mellow Ln
Paula Rd
Stella Rd
Kauk Rd
Lewis Ln
Sharon Rd
Stevenson Rd
PA-616
PA-851
Lineboro
Rd
Rd
Rd

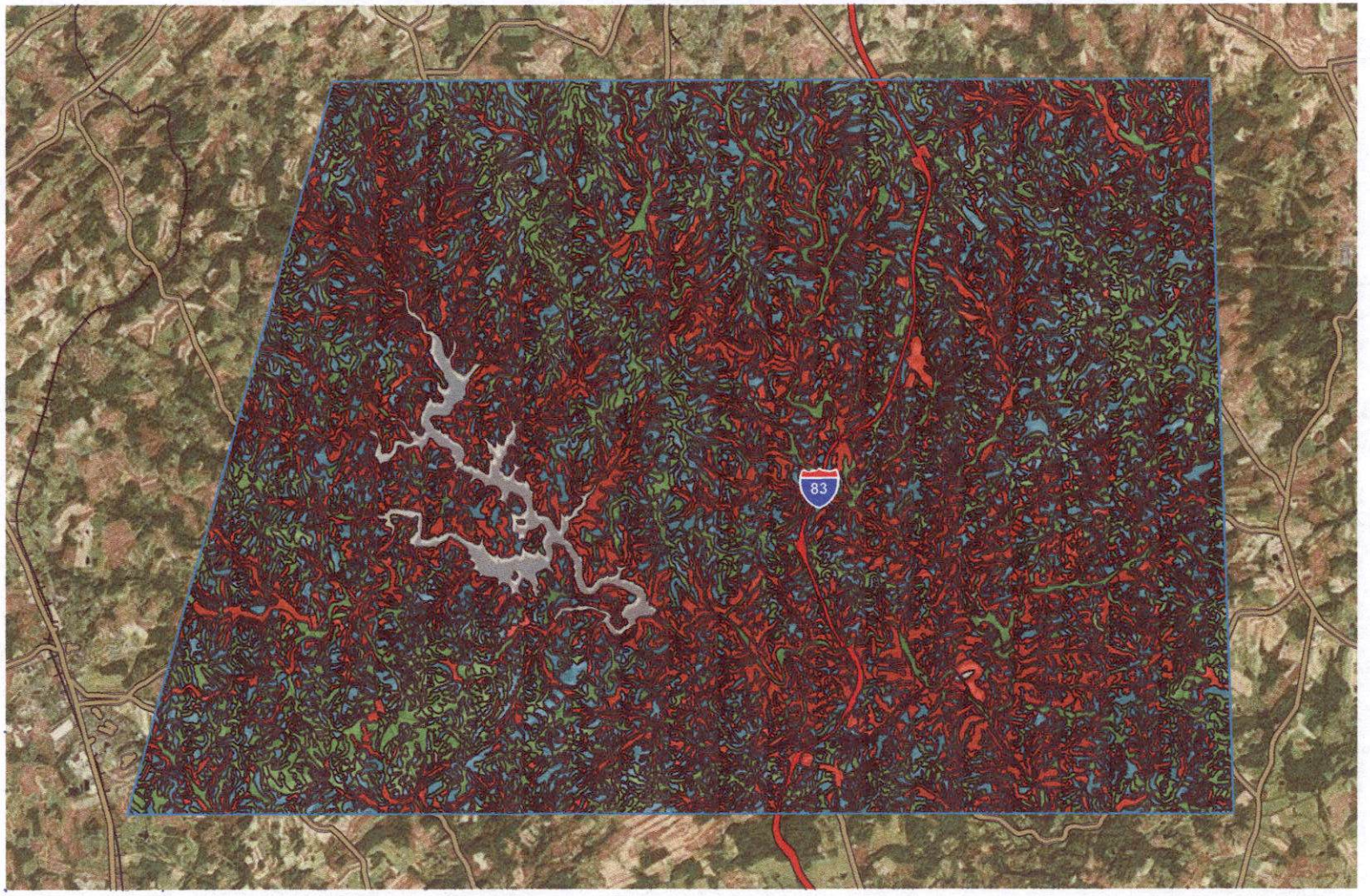
North County Community Group





Farmland Classification—Baltimore County, Maryland
(Northern Baltimore County)

76° 51' 58" W
76° 32' 14" W
39° 44' 0" N
39° 34' 7" N



Map Scale: 1:129,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 1500 3000 6000 9000

Feet
0 5000 10000 20000 30000

Map projection: Web Mercator Corner coordinates: WGS84

USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Protestant
CBA Exhibit
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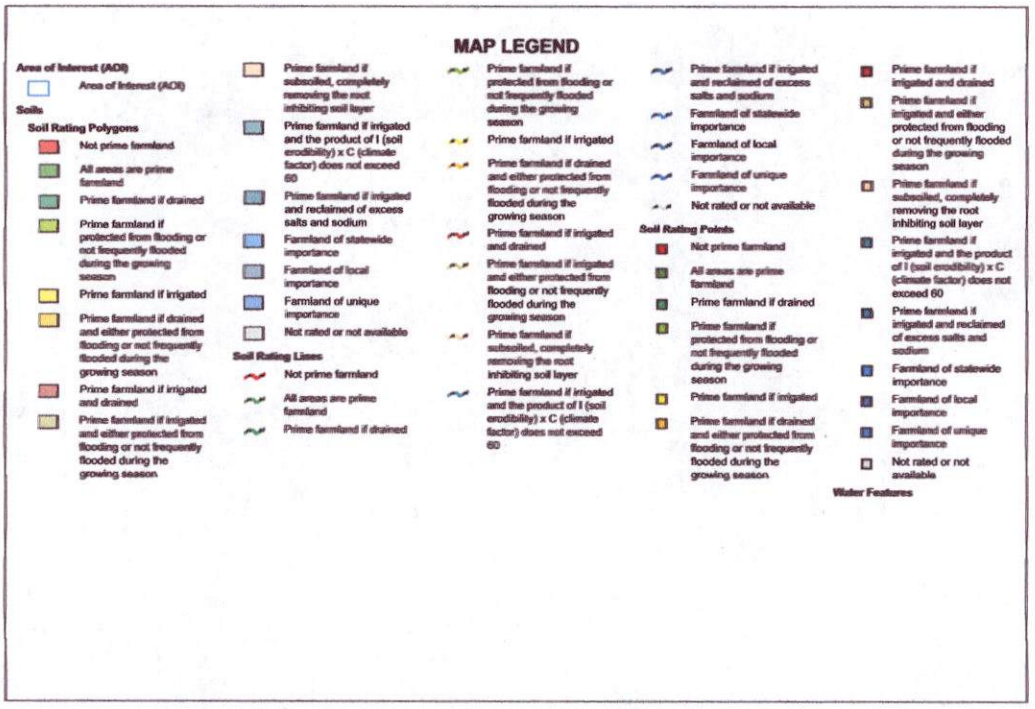


Farmland Classification—Baltimore County, Maryland
(Northern Baltimore County)

MAP INFORMATION

Streams and Canals

Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background
Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Oct 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaA	Baile silt loam, 0 to 3 percent slopes	Not prime farmland	225.8	0.3%
BaB	Baile silt loam, 3 to 8 percent slopes	Not prime farmland	392.5	0.5%
BhB	Brinklow channery loam, 3 to 8 percent slopes	All areas are prime farmland	2,554.1	3.3%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	3,633.3	4.6%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	11,168.5	14.3%
CfA	Codorus silt loams, 0 to 3 percent slopes	All areas are prime farmland	3,443.6	4.4%
CgA	Comus silt loam, 0 to 3 percent slopes	All areas are prime farmland	52.0	0.1%
DAM	Dams	Not prime farmland	2.2	0.0%
DbB	Delanco silt loam, 3 to 8 percent slopes	All areas are prime farmland	31.9	0.0%
EcC	Elioak silt loam, 8 to 15 percent slopes	Farmland of statewide importance	15.9	0.0%
GaB	Gaila loam, 3 to 8 percent slopes	All areas are prime farmland	605.8	0.8%
GaC	Gaila loam, 8 to 15 percent slopes	Farmland of statewide importance	585.3	0.7%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	3,154.8	4.0%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	7,951.8	10.2%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	4,389.0	5.6%
GeA	Glenelg channery loam, 0 to 3 percent slopes	All areas are prime farmland	77.4	0.1%
GeB	Glenelg channery loam, 3 to 8 percent slopes	All areas are prime farmland	1,410.4	1.8%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	9,403.5	12.0%
GfB	Glenelg-Urban land complex, 0 to 8 percent slopes	Not prime farmland	56.6	0.1%
GhA	Glenville silt loam, 0 to 3 percent slopes	All areas are prime farmland	527.3	0.7%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	5,335.0	6.8%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GhC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	3,198.6	4.1%
HbA	Hatboro silt loams, 0 to 3 percent slopes	Not prime farmland	1,575.1	2.0%
MaB	Manor loam, 3 to 8 percent slopes	All areas are prime farmland	115.8	0.1%
MaC	Manor loam, 8 to 15 percent slopes	Farmland of statewide importance	1,628.0	2.1%
MaD	Manor loam, 15 to 25 percent slopes	Not prime farmland	993.5	1.3%
MbB	Manor channery loam, 3 to 8 percent slopes	All areas are prime farmland	6.8	0.0%
MbC	Manor channery loam, 8 to 15 percent slopes	Farmland of statewide importance	513.7	0.7%
MbD	Manor channery loam, 15 to 25 percent slopes	Not prime farmland	2,005.6	2.6%
MbE	Manor channery loam, 25 to 45 percent slopes	Not prime farmland	16.7	0.0%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	9,238.2	11.8%
MdF	Manor-Brinklow complex, 45 to 65 percent slopes, very rocky	Not prime farmland	1,432.9	1.8%
QS	Quarries, schist/gneiss	Not prime farmland	85.1	0.1%
UcF	Udorthents, highway, 0 to 65 percent slopes	Not prime farmland	428.3	0.5%
UfE	Udorthents, refuse, 3 to 45 percent slopes	Not prime farmland	96.9	0.1%
UuB	Urban land-Udorthents complex, 0 to 8 percent	Not prime farmland	78.9	0.1%
W	Water		1,629.5	2.1%
WgB	Wheaton-Glenelg complex, 0 to 8 percent slopes	Not prime farmland	48.2	0.1%
WgC	Wheaton-Glenelg complex, 8 to 15 percent	Not prime farmland	49.8	0.1%
Totals for Area of Interest			78,158.7	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

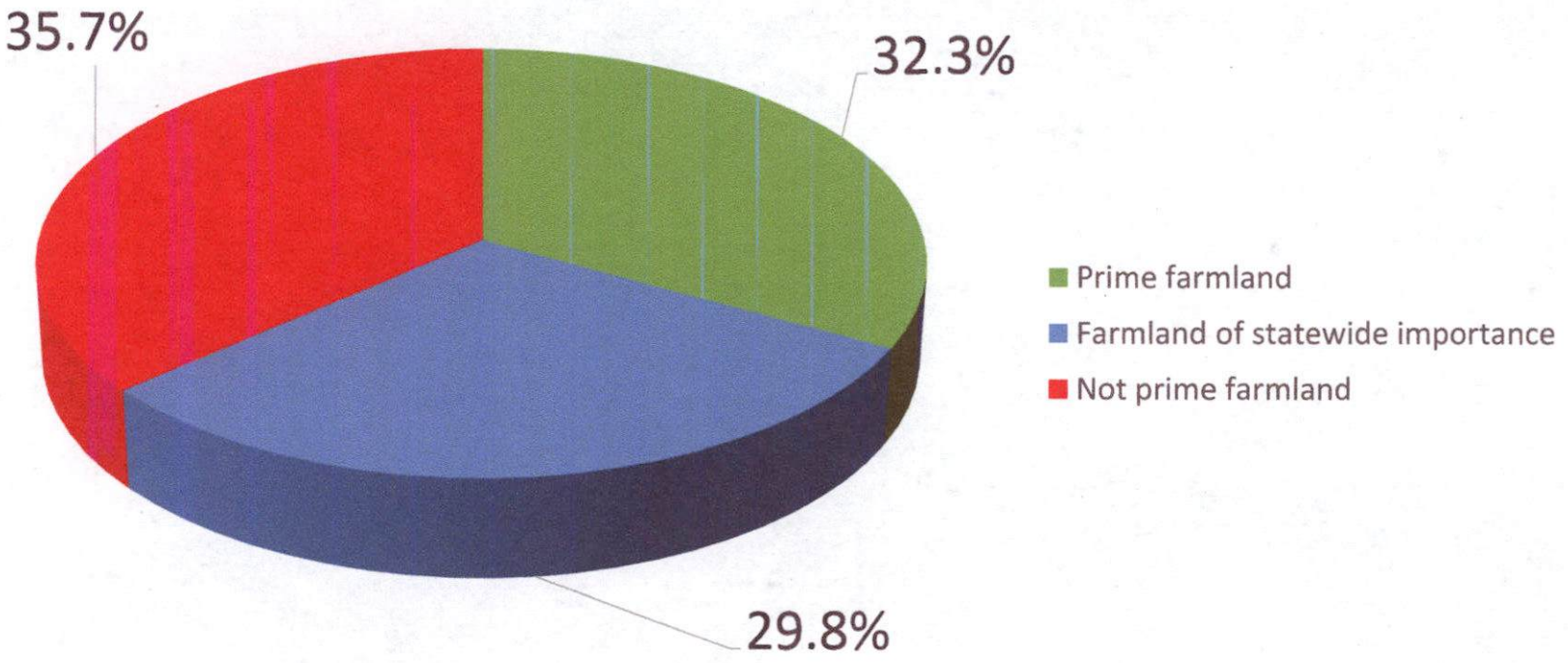
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

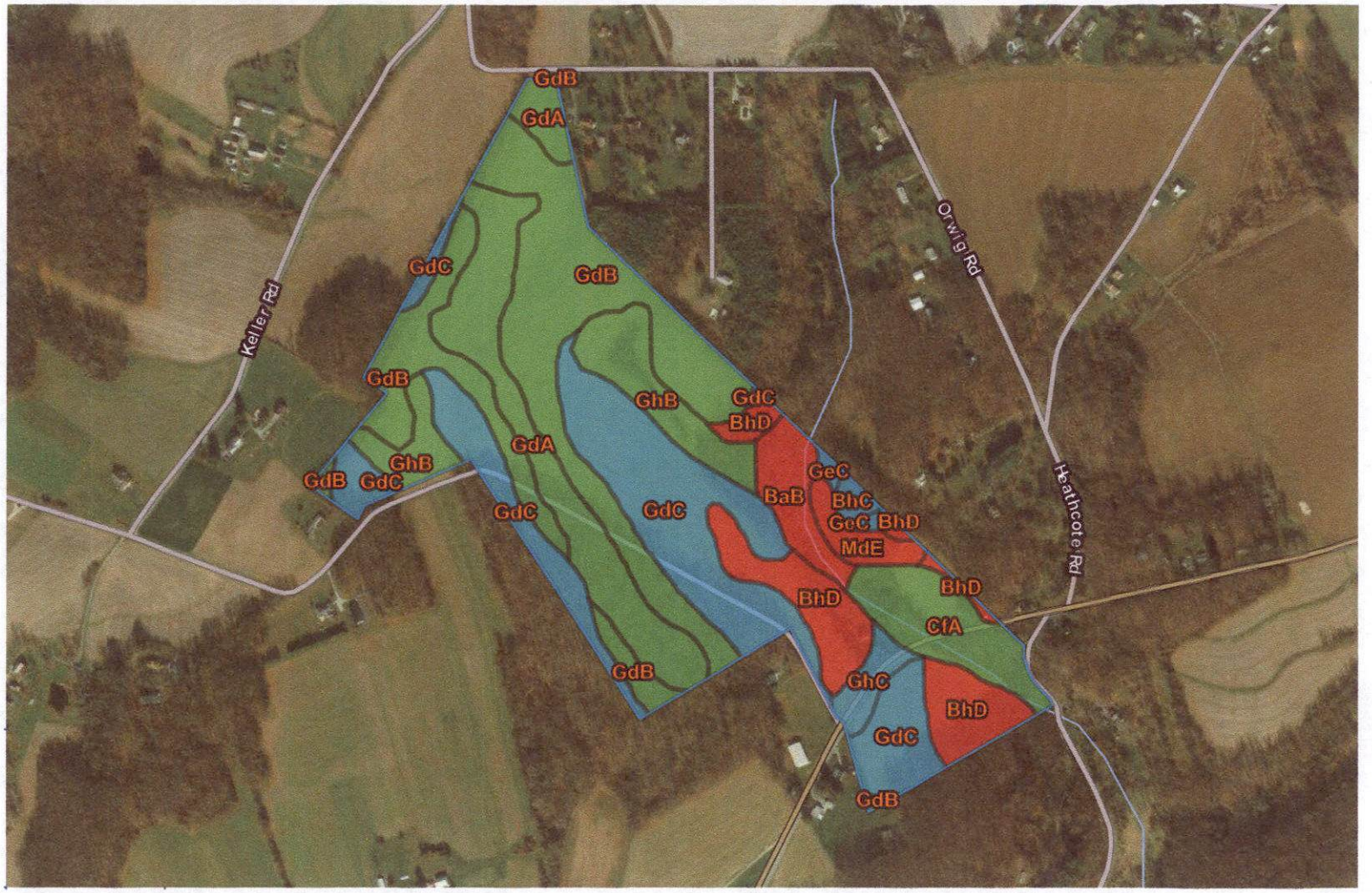
Northern Baltimore County Farm Soil Classification

Reference Web Soil Survey Report dated 10/8/2018



Kathleen Pieper 11/22/2018

Farmland Classification—Baltimore County, Maryland
(632 Freeland Road Freeland, MD)



Map Scale: 1:8,850 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

Protestant
CBA Exhibit
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MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	Not prime farmland	3.7	3.7%
BhC	Brinklow channery loam, 8 to 15 percent slopes	Farmland of statewide importance	0.7	0.7%
BhD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	10.0	10.0%
CfA	Codorus silt loams, 0 to 3 percent slopes	All areas are prime farmland	6.6	6.6%
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	13.6	13.7%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	27.7	27.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	24.9	25.0%
GeC	Glenelg channery loam, 8 to 15 percent slopes	Farmland of statewide importance	0.7	0.7%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	7.8	7.8%
GhC	Glenville silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.9	1.9%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	2.1	2.1%
Totals for Area of Interest			99.5	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Protestant
CBA Exhibit
6 O

Farmland Classification—Baltimore County, Maryland
(632 Freeland Road SE Area)



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GdA	Glenelg loam, 0 to 3 percent slopes	All areas are prime farmland	5.4	29.3%
GdB	Glenelg loam, 3 to 8 percent slopes	All areas are prime farmland	9.8	52.8%
GdC	Glenelg loam, 8 to 15 percent slopes	Farmland of statewide importance	2.5	13.2%
GhB	Glenville silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.9	4.7%
Totals for Area of Interest			18.6	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

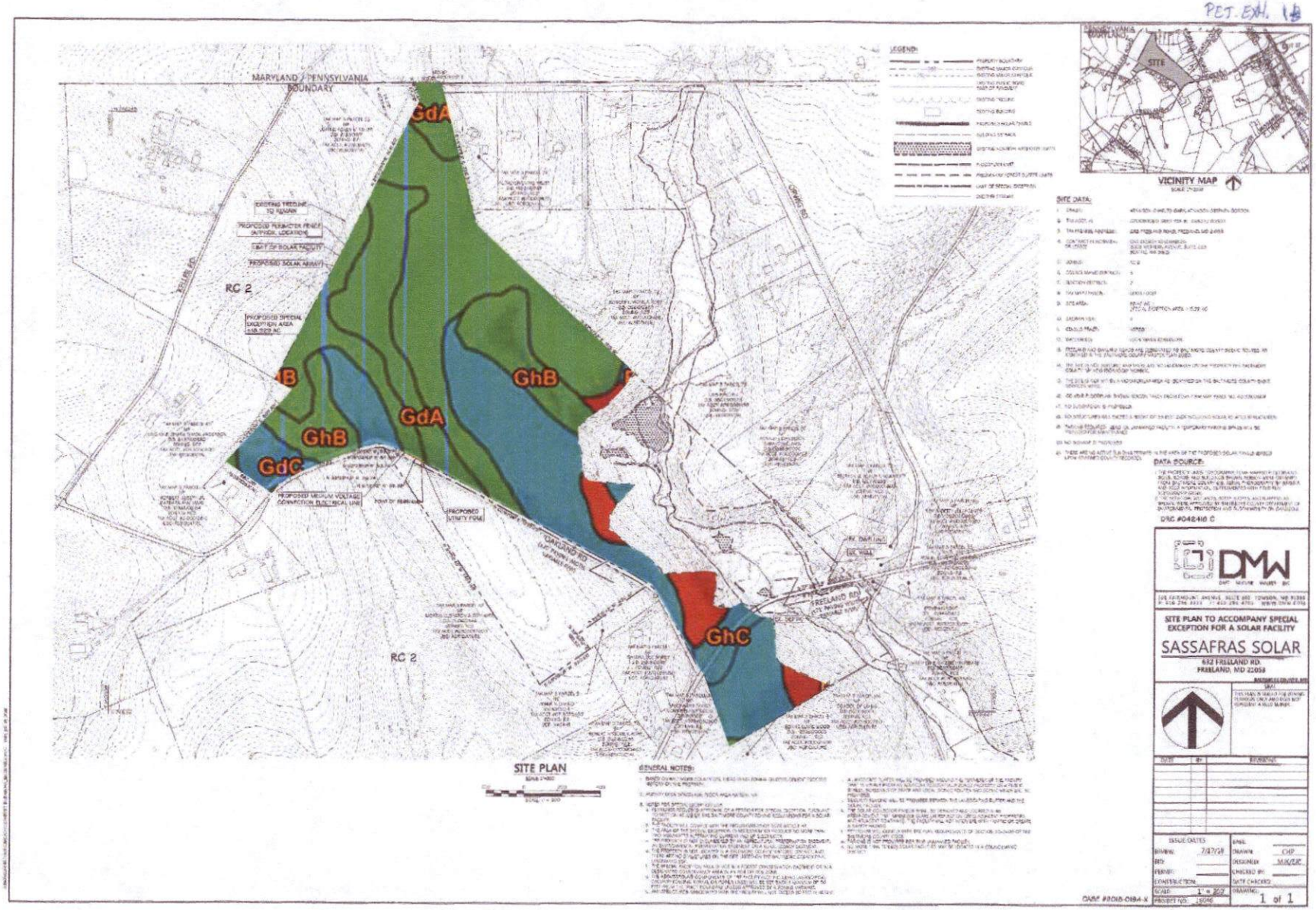
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

632 Freeland Road Freeland, MD Tillable Farmland Soil Classification

PET. EXH. 1B



Kathleen Pieper 11/22/2018

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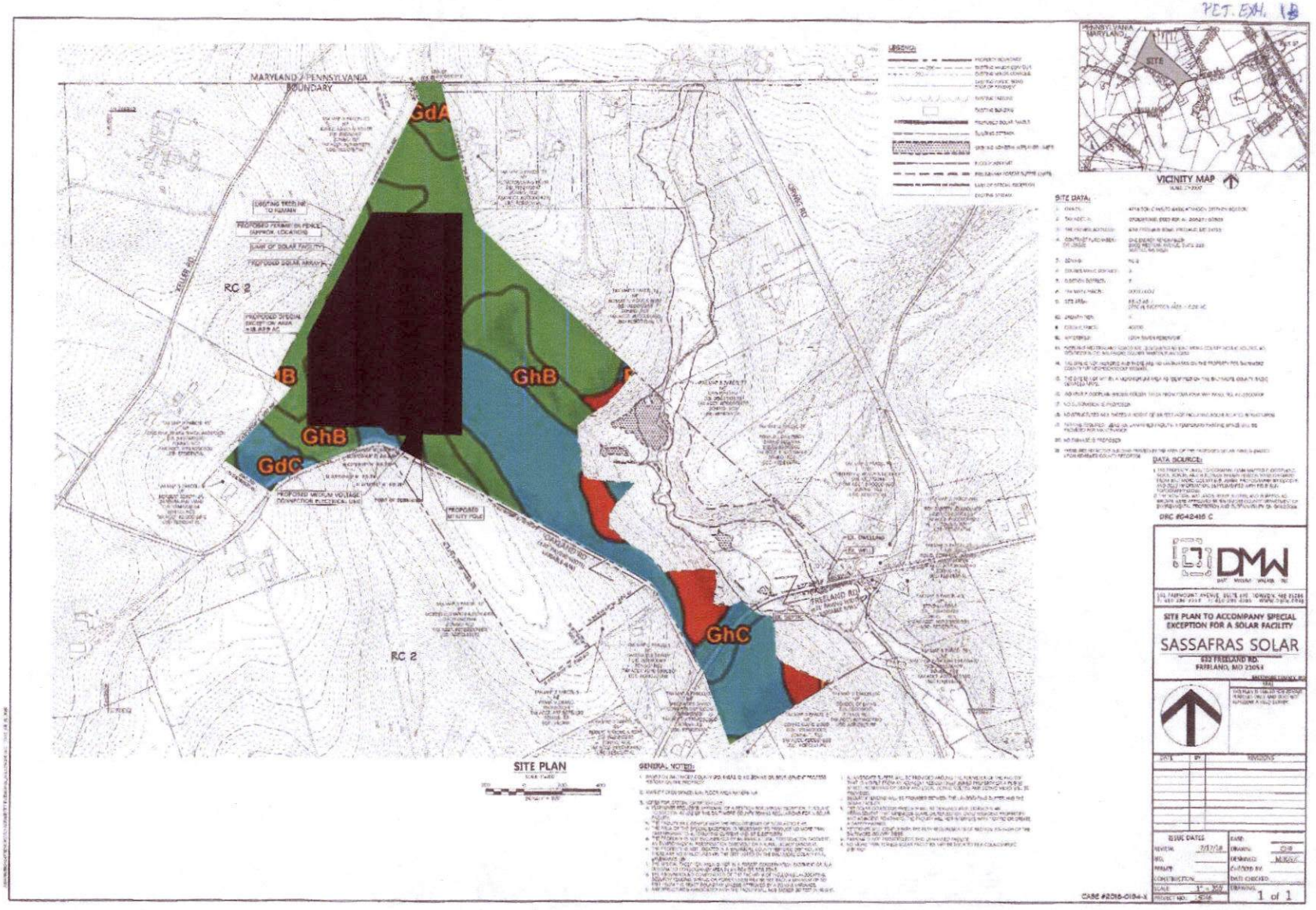
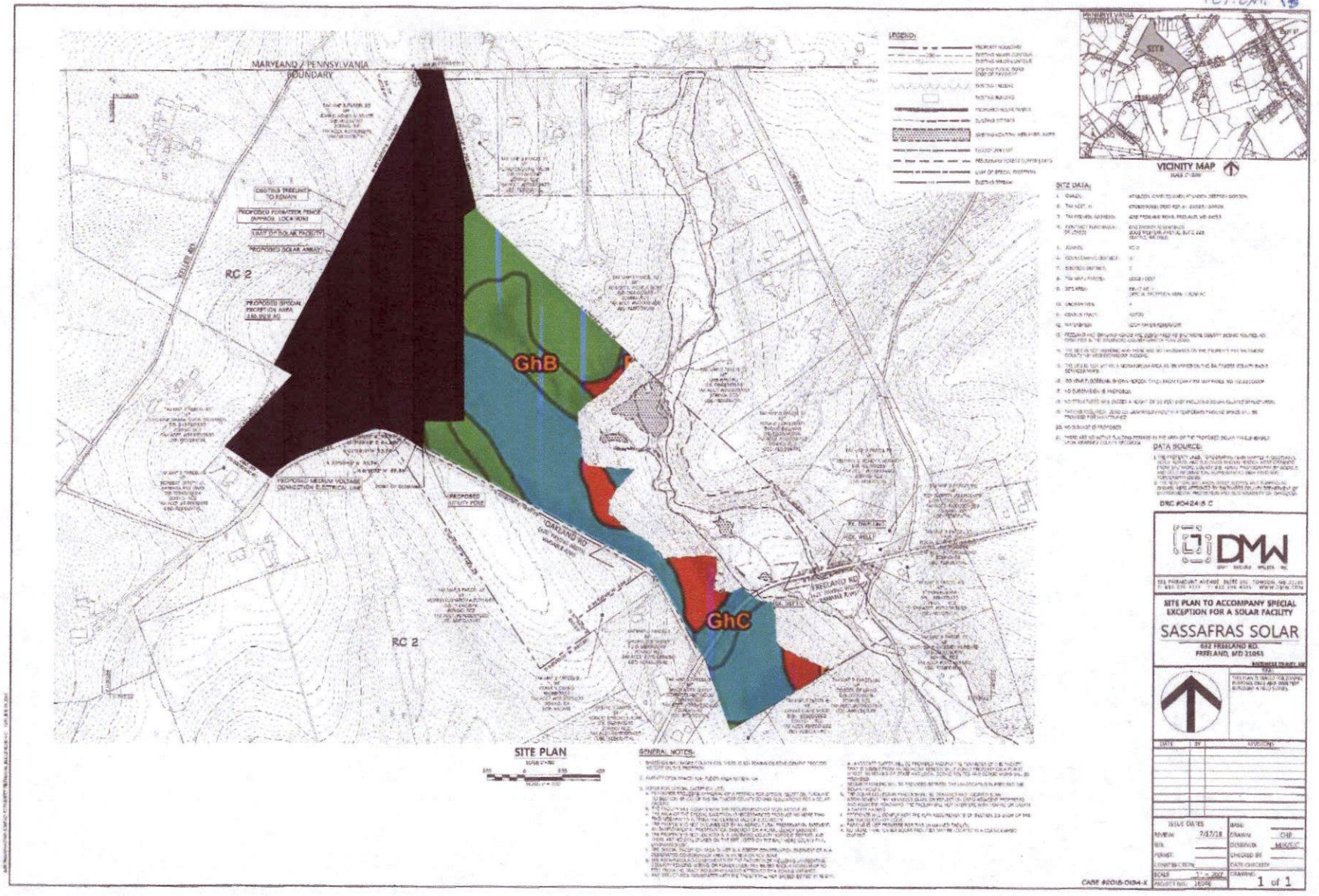
632 Freeland Road Freeland, MD Tillable Farmland Soil Classification



Kathleen Pieper 11/22/2018

632 Freeland Road Freeland, MD Tillable Farmland Soil Classification

PET. EXH. 18



Kathleen Pieper 11/22/2018

Map Symbol	Symbol Name	Rating	N. Balt. County Acres	N. Balt. County %	632 Freeland Acres	632 Freeland %
BaA	Baile silt loam, 0 to 3 % slopes	Not prime farmland	225.8	0.3		
BaB	Baile silt loam, 3 to 8 % slopes	Not prime farmland	392.5	0.5		
BhB	Brinklow channery loam, 3 to 8 % slopes	Prime farmland	2,554.1	3.3		
BhC	Brinklow channery loam, 8 to 15 % slopes	Farmland of statewide importance	3,633.3	4.6		
BhD	Brinklow channery loam, 15 to 25 % slopes	Not prime farmland	11,168.5	14.3		
CfA	Codorus silt loams, 0 to 3 % slopes	Prime farmland	3,443.6	4.4		
CgA	Comus silt loam, 0 to 3 % slopes	Prime farmland	52.0	0.1		
DAM	Dams	Not prime farmland	2.2	0.0		
DbB	Delanco silt loam, 3 to 8 % slopes	Prime farmland	31.9	0.0		
EcC	Elioak silt loam, 8 to 15 % slopes	Farmland of statewide importance	15.9	0.0		
GaB	Gaila loam, 3 to 8 % slopes	Prime farmland	605.8	0.8		
GaC	Gaila loam, 8 to 15 % slopes	Farmland of statewide importance	585.3	0.7		
GdA	Glenelg loam, 0 to 3 % slopes	Prime farmland	3,154.8	4.0	5.4	29.3
GdB	Glenelg loam, 3 to 8 % slopes	Prime farmland	7,951.8	10.2	9.8	52.8
GdC	Glenelg loam, 8 to 15 % slopes	Farmland of statewide importance	4,389.0	5.6	2.5	13.2
GeA	Glenelg channery loam, 0 to 3 % slopes	Prime farmland	77.4	0.1		
GeB	Glenelg channery loam, 3 to 8 % slopes	Prime farmland	1,410.4	1.8		
GeC	Glenelg channery loam, 8 to 15 % slopes	Farmland of statewide importance	9,403.5	12.0		
GfB	Glenelg-Urban land complex, 0 to 8 % slopes	Not prime farmland	56.6	0.1		
GhA	Glenville silt loam, 0 to 3 % slopes	Prime farmland	527.3	0.7		
GhB	Glenville silt loam, 3 to 8 % slopes	Prime farmland	5,335.0	6.8	0.9	4.7
GhC	Glenville silt loam, 8 to 15 % slopes	Farmland of statewide importance	3,198.6	4.1		
HbA	Hatboro silt loams, 0 to 3 % slopes	Not prime farmland	1,575.1	2.0		
MaB	Manor loam, 3 to 8 % slopes	Prime farmland	115.8	0.1		
MaC	Manor loam, 8 to 15 % slopes	Farmland of statewide importance	1,638	2.1		
MaD	Manor loam, 15 to 25 % slopes	Not prime farmland	933.5	1.3		
MbB	Manor channery loam, 3 to 8 % slopes	Prime farmland	6.8	0.0		
MbC	Manor channery loam, 8 to 15 % slopes	Farmland of statewide importance	513.7	0.7		
MbD	Manor channery loam, 15 to 25 % slopes	Not prime farmland	2,005.6	2.6		
MbE	Manor channery loam, 25 to 45 % slopes	Not prime farmland	16.7	0.0		
MdE	Manor-Brinklow complex, 25 to 45 % slopes, very rocky	Not prime farmland	9,238.2	11.8		
MdF	Manor-Brinklow complex, 45 to 65 % slopes, very rocky	Not prime farmland	1,432.9	1.8		
QS	Quarries, schist/gneiss	Not prime farmland	85.1	0.1		
UcF	Udorthents, highway, 0 to 65 % slopes	Not prime farmland	428.3	0.5		
UfE	Udorthents, refuse, 3 to 45 % slopes	Not prime farmland	96.9	0.1		
UuB	Urban land-Udorthents complex, 0 to 8 %	Not prime farmland	78.9	0.1		
W	Water		1,629.5	2.1		
WgB	Wheaton-Glenelg complex, 0 to 8 % slopes	Not prime farmland	48.2	0.1		
WgC	Wheaton-Glenelg complex, 8 to 15 %	Not prime farmland	49.8	0.1		
Totals for Area of Interest			**72,622.0**	**100.0%**	**18.6**	**100.0%**

Kathleen Pieper 10-10-2018 Data from: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

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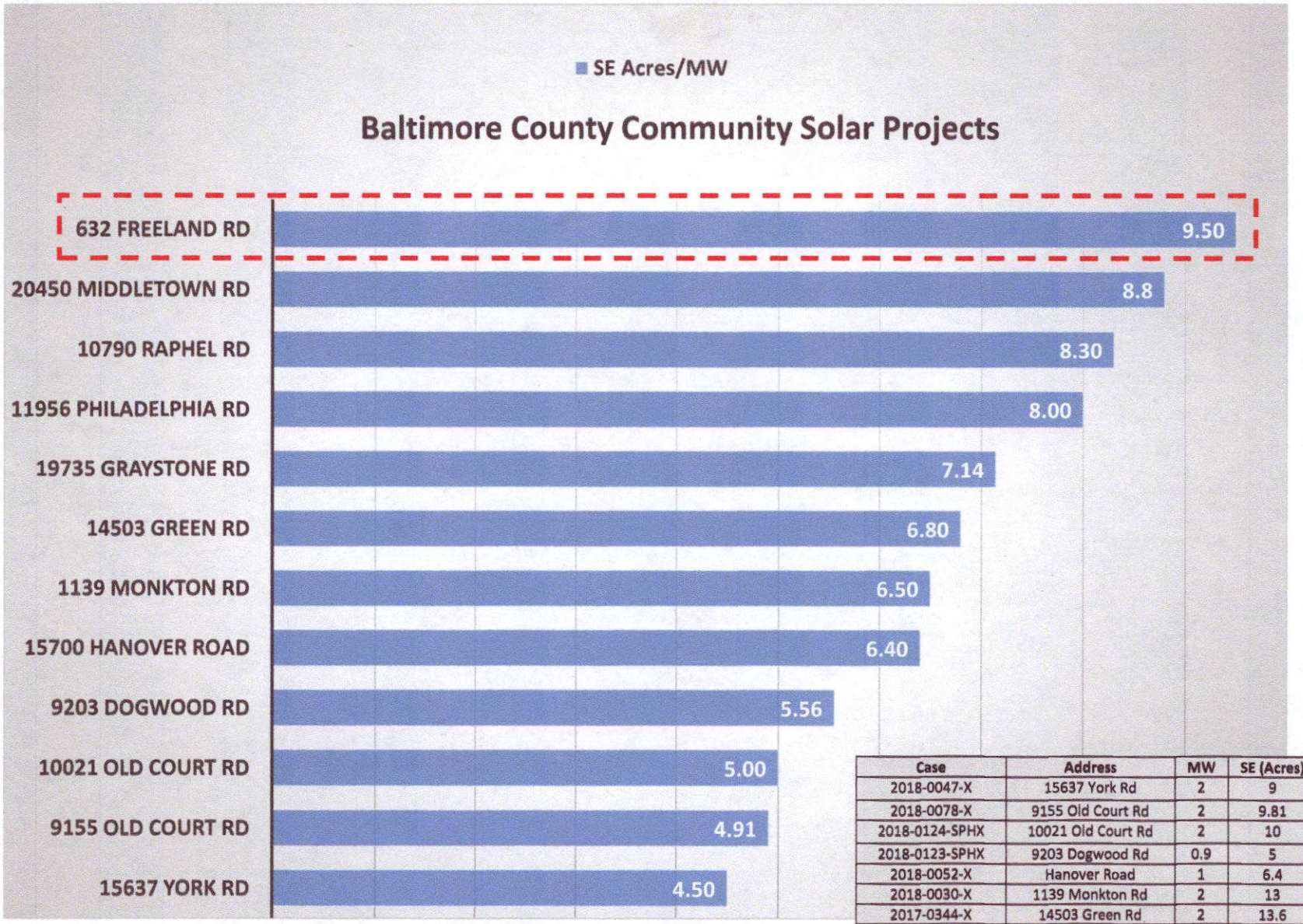

Case	Address	MW	SE (Acres)	SE Acres/MW
2018-0047-X	15637 York Rd	2	9	4.5
2018-0078-X	9155 Old Court Rd	2	9.81	4.9
2018-0124-SPHX	10021 Old Court Rd	2	10	5.0
2018-0123-SPHX	9203 Dogwood Rd	0.9	5	5.6
2018-0052-X	Hanover Road	1	6.4	6.4
2018-0030-X	1139 Monkton Rd	2	13	6.5
2017-0344-X	14503 Green Rd	2	13.6	6.8
2018-0072-X	19735 Graystone Rd	0.84	6	7.1
2018-0095-SPHXA	11956 Philadelphia Rd	2	16	8.0
2018-0127-X	10790 Raphel Rd	2	16.64	8.3
2017-0108-X	20450 Middletown Rd	1.9	16.71	8.8
2018-0194-X	632 Freeland Rd	2	19	9.5

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ARTICLE 4F. Solar Facilities

[Bill No. 37-2017 *Editor's Note: This article was enacted as Article 4E. Because provisions regarding breweries were also enacted as Article 4E, this article was renumbered to avoid duplicate numbering and to maintain the organization of the Zoning Regulations.* **]**

§ 4F-101. Purpose and definitions.

A. Purpose. Solar energy is recognized as an abundant, renewable, and environmentally sustainable source of electricity generation that will lead to greater local grid resiliency and security, and produce clean, renewable energy and reduce air and water pollution caused by the burning of traditional fossil fuels. The purpose and intent of this article is to permit solar facilities in parts of the rural and commercial areas of the County by special exception, and to balance the benefits of solar energy production with its potential impact upon the County's land use policies by ensuring sufficient safeguards are in place to protect the County's communities and its agricultural land, forests, waterways and other natural resources.

B. Definitions. As used in this article, the following terms have the meanings indicated:

COMMERCIAL USE

The transfer to the electrical power grid of energy produced by a solar facility for sale by energy suppliers to consumers.

SOLAR FACILITY

A facility that includes a series of one or more solar collector panels or solar energy systems that are placed in an area on a tract of land for the purpose of generating photovoltaic power for commercial use. The term includes a solar power plant or solar photovoltaic farm.

§ 4F-102. Location of solar facilities.

A. Subject to Paragraph B, a solar facility is permitted only by special exception in the R.C. 2, R.C. 3, R.C. 4, R.C. 5, R.C. 6, R.C. 7, R.C. 8, B.L., B.M., M.R., M.L.R., and M.H. Zones of the County.

B. The allocation of land for solar facilities in the County is limited to the following:

1. The maximum area permitted for a single solar facility is the amount of acreage that produces no more than two megawatts alternating current (AC) of electricity.
2. No more than 10 solar facilities may be located in a councilmanic district.
3. The Director of Permits, Approvals and Inspections shall maintain a record of all permits issued for a solar facility in the County, including the location and councilmanic district for each such facility, and shall keep a current accounting of the number of facilities in each councilmanic district under this paragraph.
4. Upon reaching the threshold of 10 solar facilities in a councilmanic district, no additional permits shall be issued for a solar facility in that district unless an existing facility previously approved under this article has been removed pursuant to Section 4F-107.

§ 4F-103. Exception.

This article does not apply to the following solar facility installations:

A. A ground-mounted solar facility that is accessory to a principal residential or agricultural use (subject to Sections 400.1 and 400.2 of these regulations applicable to accessory buildings), or accessory to a principal commercial, industrial, or institutional use;

B. A rooftop solar facility;

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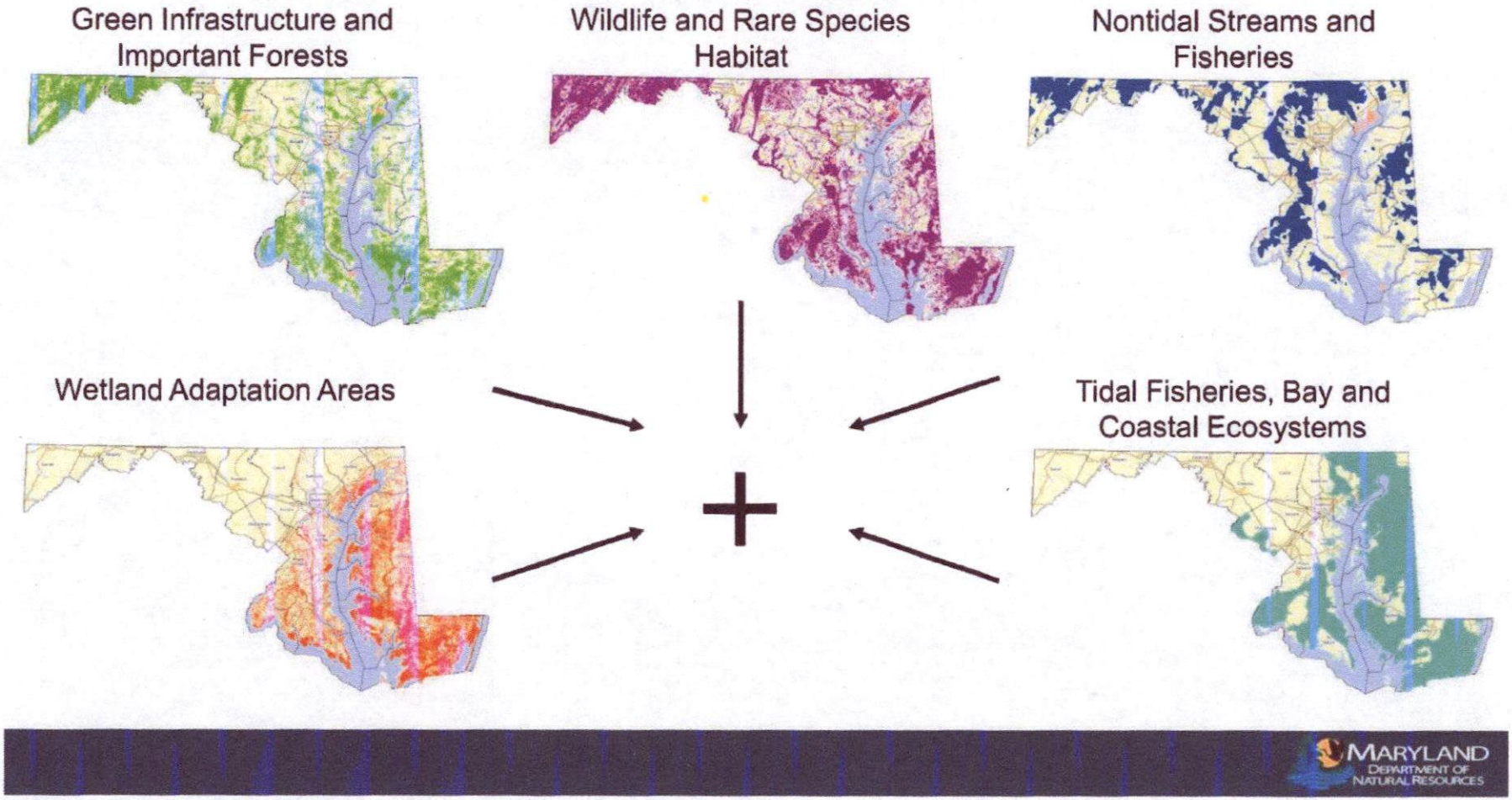
Targeted Ecological Areas (TEAs)

"The Best of The Best"



https://acwi.gov/monitoring/conference/2012/K4/K4ConnV4.pdf
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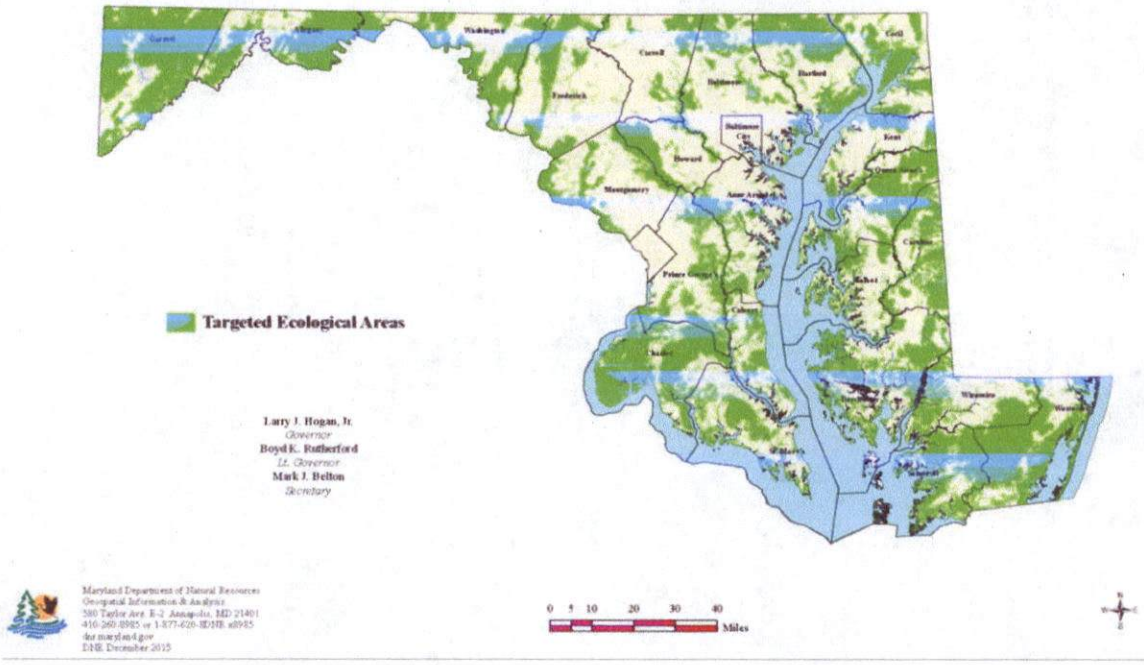
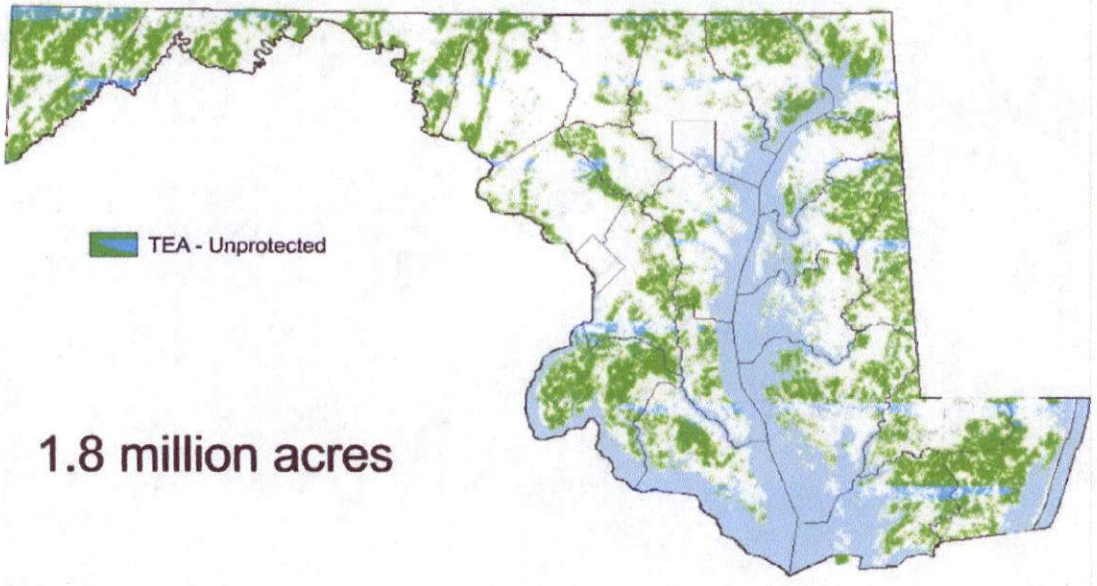
MARYLAND
Smart, Green & Growing

POS Stateside - Targeted Ecological Areas



Targeted Ecological Areas (2011) preferred for POS funding



1.8 million acres

https://acwi.gov/monitoring/conference/2012/K4/K4ConnV4.pdf
Kathleen Pieper 10-10-2018

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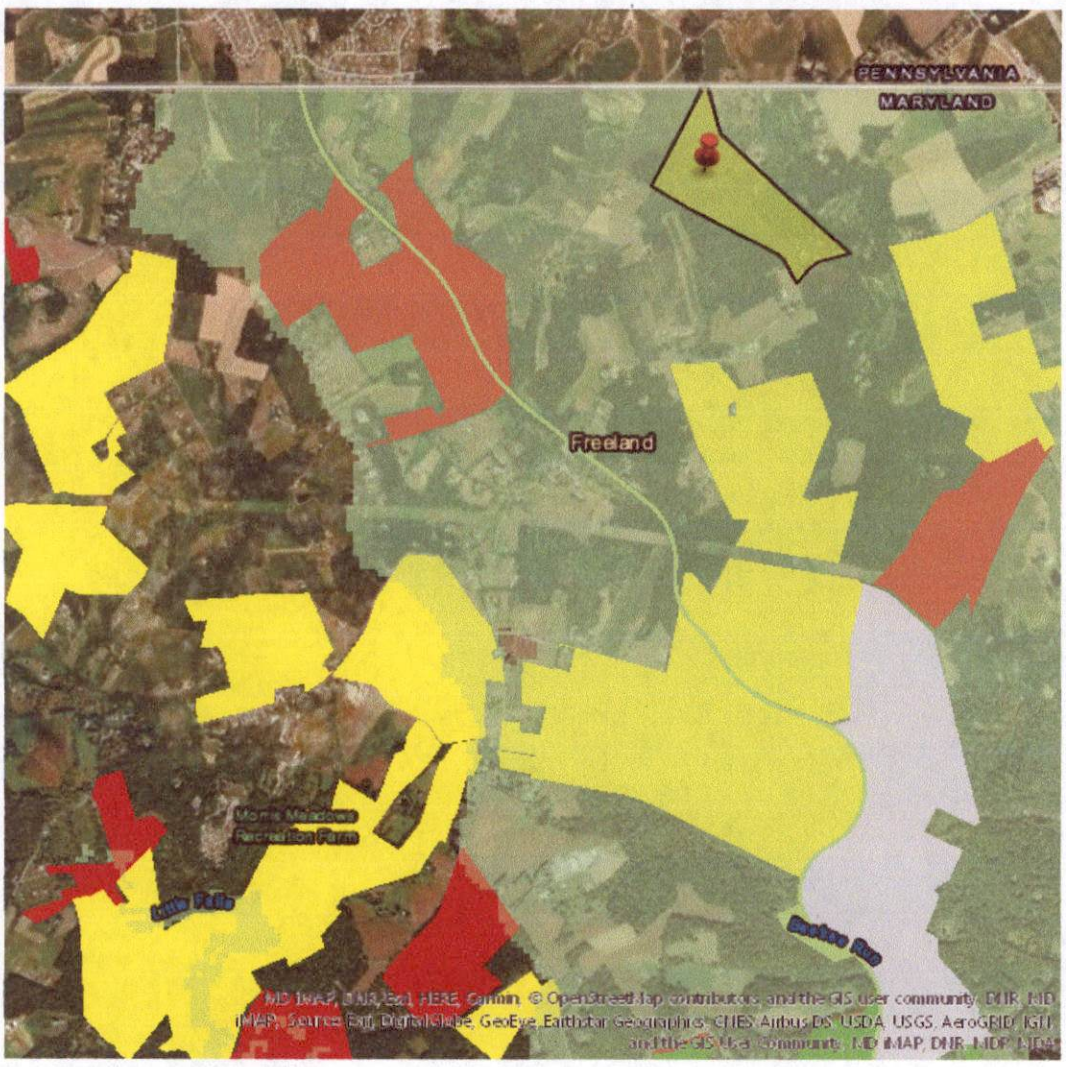
MARYLAND DEPARTMENT OF NATURAL RESOURCES

Conservation Benefits Assessment



Parcel Analyzed

Account ID:04070701089060
Tax Map:0003
Parcel ID:0017
Parcel size:70.21 acres
Targeted Ecological Area: 70.94 acres

Ratings are partially based on field surveys, but not all parcels have been surveyed. The data used to rate parcels are updated as new information is gathered and processed. Ratings may not reflect the most recently gathered data available or the parcel's actual ecological value if surveys have not been conducted.

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Benefit Ratings

Habitat Connectivity ★☆☆☆☆	The state's remaining large blocks of forest and wetlands (hubs) and the habitat pathways (corridors) that connect them. Data Source: Maryland DNR, Green Infrastructure - Hubs and corridors. 2005
Rare Species & Wildlife Habitat ★★★★★	As described by the Biodiversity Conservation Network(BioNet), these are habitats of the state's rarest plants and animals, as well as high quality and rare natural communities and other living resources of conservation concern. Data Source: Maryland DNR, BioNet Version 2. 2017
Support of Aquatic Life ★★★★★	Watersheds that support high quality streams and riverine areas that are important for aquatic biodiversity and freshwater recreational fisheries. Data Source: Maryland DNR, Stronghold Watersheds 2011., MDE Maryland Water Quality Tier II Catchments. 2016., MDE Surface Water Use Class 2014.
Forests Important for Water Quality Protection ★★★★★	Forests for healthy watersheds that are the most effective in preventing pollution to streams, rivers and bays and maintaining healthy stream hydrology. Data Source: Maryland DNR Forests Important for Water Quality. 2011.
Targeted Ecological Area YES	Lands and watersheds identified as the most ecologically valuable areas in the State and are preferred for conservation funding through Stateside Program Open Space(POS). At least 50% of the parcel must be in a Targeted Ecological Area to meet ecological criteria for POS. Data Source: Maryland DNR, Maryland Focal Areas - Targeted Ecological Areas 2011.
Coastal Community Resiliency ★★★★★	Areas along the shoreline where natural habitats, such as marshes and coastal forests, have the potential to reduce the impact of coastal hazards to the adjacent coastal communities by dampening waves, stabilizing sediment, and absorbing water. Data Source: Maryland DNR, Maryland Coastal Resiliency Assessment - Priority Shoreline Areas and Marsh Protection Potential Index. 2016.
Future Wetland Habitat ★☆☆☆☆	Areas important for inland wetland migration resulting from sea level rise that will support high value coastal habitats of the future. Data Source: Maryland DNR, Maryland Sea Level Rise Wetland Adaptation Areas. 2016.
Proximity to Protected Lands ★★★★★	Conservation opportunities located near other protected land areas contributes to landscape scale protection which is key for conserving healthy aquatic and terrestrial ecosystems. Data Source: Maryland DNR and Dept. of Planning, Protected Lands. 2017.

Ecosystem Service Assessment

Ecosystem Service Name *(and biophysical unit)(range)*	Annual Parcel-Level Values*		Annual Per-Acre Values**	
	Biophysical	Economic	Biophysical	Economic
Air Pollution Removal: Carbon Monoxide (CO) *(kg per year)(0-1.35 kg per acre per year)*	11.20	$0.30	0.16	$0.00
Air Pollution Removal: Nitrogen Dioxide(NO_2) *(kg per year)(0- 9.01 kg per acre per year)*	115.89	$3.89	1.63	$0.05
Air Pollution Removal: Sulfur Dioxide(SO_2) *(kg per year)(0- 6.67 kg per acre per year)*	30.18	$0.38	0.43	$0.01
Air Pollution Removal: Ozone (O_3) *(kg per year)(0-34.35 kg per acre per year)*	455.78	$122.22	6.42	$1.72
Air Pollution Removal: Particulate Matter(PM_{10}) *(kg per year)(0-8.34 kg per acre per year)*	114.46		1.61	
Air Pollution Removal: Particulate Matter($PM_{2.5}$) *(kg per year)(0-1.80 kg per acre per year)*	8.34	$97.06	0.12	$1.37
Carbon Sequestration *(mT per year)(0-4 mt per acre per year)*	12.15	$1,692.17	0.17	$23.85
Groundwater Recharge *(m3per year)(445 - 1236 m3 per acre per year)*	6696.12	$10,285.00	94.39	$144.97
Nitrogen Uptake Potential Index *(1 = low to 3 = high)**	2.00	$1,400.00	No Data	$19.73
Stormwater Mitigation Potential Index *(1 = low to 5 = high)**	1.93	$16,882.00	No Data	$237.96
Wildlife Habitat and Biodiversity Potential Index *(0 = low to 100 = high)**	100.00	$90,277.00	No Data	$1,272.51
Surface Water Protection	No Data	$26,682.00	No Data	$376.10
Total Annual Economic Value	No Data		No Data	$2,078.49



Ecosystem Service Descriptions

Ecosystem Services(ES):ES can be broadly defined as the benefits which humans receive as a result of the work performed by naturally functioning ecosystems. When natural systems are lost, the services they provide to society are also lost. If not replaced, society will eventually suffer consequences, such as negative human health impacts due to poor air or water quality. Here, we quantify the value of ES provided by forests and wetlands areas in biophysical and economic terms. Greater biophysical values or higher indexes correspond to higher economic values for the ecosystem service.

Biophysical Value: The physical work performed by an ecosystem, quantified using ecological models.

Economic Value: The monetary value of the benefits provided to society through ES. Here, the 'social value' of ES is quantified, based on known instances of payments for ES, such as current market values, payments for conservation or restoration, or payments to install man-made alternatives to supplement services lost. It is important to note that the economic values reported here are intended for evaluating tradeoffs and informing decision making, but do not indicate market value or compensatory value.

Air Pollution Removal: Trees remove pollution from the air that would otherwise contribute to human health problems, such as asthma and cardiovascular stress.

Carbon Sequestration: Ecosystems take up carbon and store it in their biomass, offsetting some of the emissions from human activity and helping to reduce climate change.

Data: Biophysical, Economic

Groundwater Recharge: Ecosystems allow for water to percolate through the soil and recharge aquifers, which Maryland relies on for 50% of its drinking water supply.

Data: Biophysical, Economic

Nitrogen Uptake Potential Index: Nitrogen pollution is critically important to the health Chesapeake Bay. Forests and wetlands remove nitrogen through taking it up in their biomass and soils.

Data: Biophysical, Economic

Stormwater Mitigation/Flood Prevention Potential Index: Forests and wetlands absorb rainfall, lessening the amount of runoff that would otherwise cause erosion, need to be treated by stormwater systems, or cause flood damage.

Data: Biophysical, Economic

Wildlife Habitat and Biodiversity Potential Index: Certain forests and wetlands are better able to support wildlife and more likely to support rare and threatened species. These are typically ecosystems that are less impacted by people.

Data: Biophysical, Economic

Surface Water Protection: Forests reduce pollutant runoff into reservoirs, increasing water quality in the reservoir and reducing the cost of treating water to meet drinking water standards.

Data: Economic

For additional information regarding the data and methods used in this assessment, and to view the full project report, please visit the MD DNR Chesapeake and Coastal Service Ecosystem Service webpage.

Chesapeake & Coastal Service

Contact: Christine Conn | 410-260-8735 | christine.conn@maryland.gov
Kevin Coyne | 410-260-8985 | kevin.coyne@maryland.gov
Chesapeake & Coastal Service
Maryland Department of Natural Resources
580 Taylor Avenue, E-2 | Annapolis, Maryland 21401

This report was prepared by the Maryland Environmental Service using Federal funds under award number NA15NOS4190165 from NOAA, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce. We acknowledge the financial assistance provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office for Coastal Management, National Oceanic and Atmospheric Administration.

County Boundaries

Protected Lands Recent Acquisitions

Rural Legacy CY18 Acquisitions detail
- Outside TEA
- Within TEA

MD Environmental Trust CY18 Acquisitions detail
- Within TEA
- Outside TEA

MD Agricultural Land Preservation Foundation CY18 Acquisitions detail
- Within TEA
- Outside TEA

Program Open Space CY18 Acquisitions detail
- Within TEA
- Outside TEA

Rural Legacy Areas

Focal Areas

Targeted Ecological Areas

Protected Lands by Category

DNR Owned Lands and Conservation Easements
- DNR Owned Properties
- DNR Owned Properties - Submerged
- Conservation Reserve Enhancement Program
- Forest Legacy
- Other

Rural Legacy Properties

MD Environmental Trust Easements

Forest Conservation Act Easements

MD Agricultural Land Preservation Foundation Easements

Local Protected Lands

Coastal and Estuarine Land Conservation Program

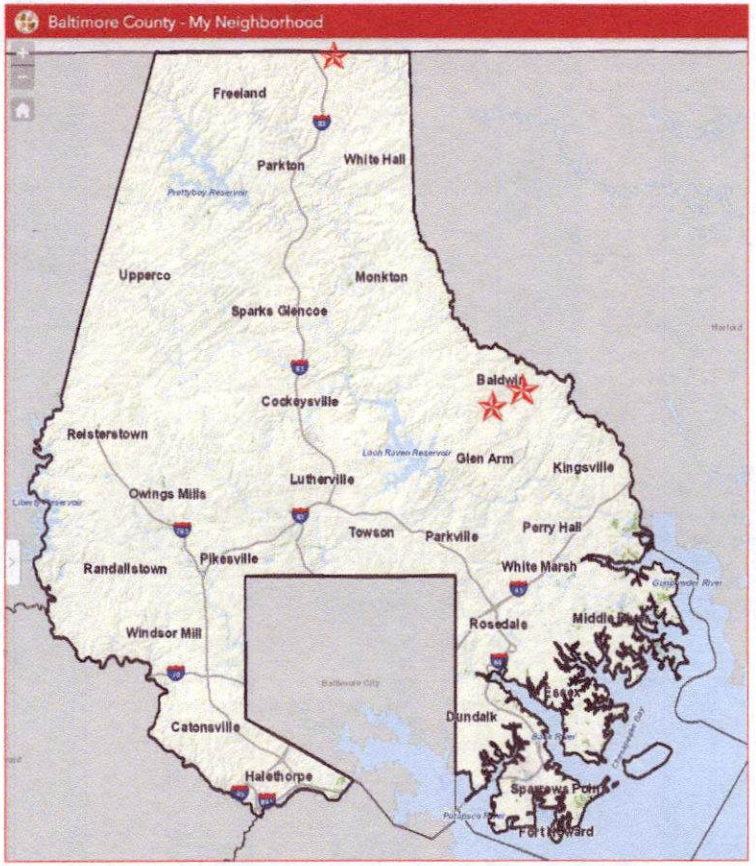
Private Conservation Lands

Protected Federal Lands

Transfer Development Rights and Purchase Development Rights
- Transfer Development Rights

Potential Alternate Community Solar Sites in Northern Baltimore County, Maryland

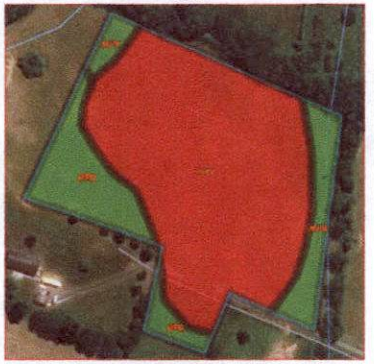
	632 Freeland Road Special Exception Area	Alternatives
Zoning	RC-2 open land	RC-2 open land
Farmland Class	**Prime farmland**	Not prime farmland
Topography	0-15% slopes	0-3 % slopes
Conservation Easement / Historical Site	No	No
Project Open Space Priority *(Preservation)*	**Targeted Ecological Area (TEA)**	No
Area >/= min. required *(ALJ Chart)*	**Yes**	Yes
Along a scenic road or bi-way	**Yes**	No
Road Access	**Yes**	Yes



Kathleen Pieper 11/22/2018



13220 Long Green Pike
Hydes, MD
7.9 / 25 acres



13716 Baldwin Mill Road
Baldwin, MD
6.3 / 28.12 acres



1338 Harris Mill Road
Parkton, MD
6.3 / 102 acres

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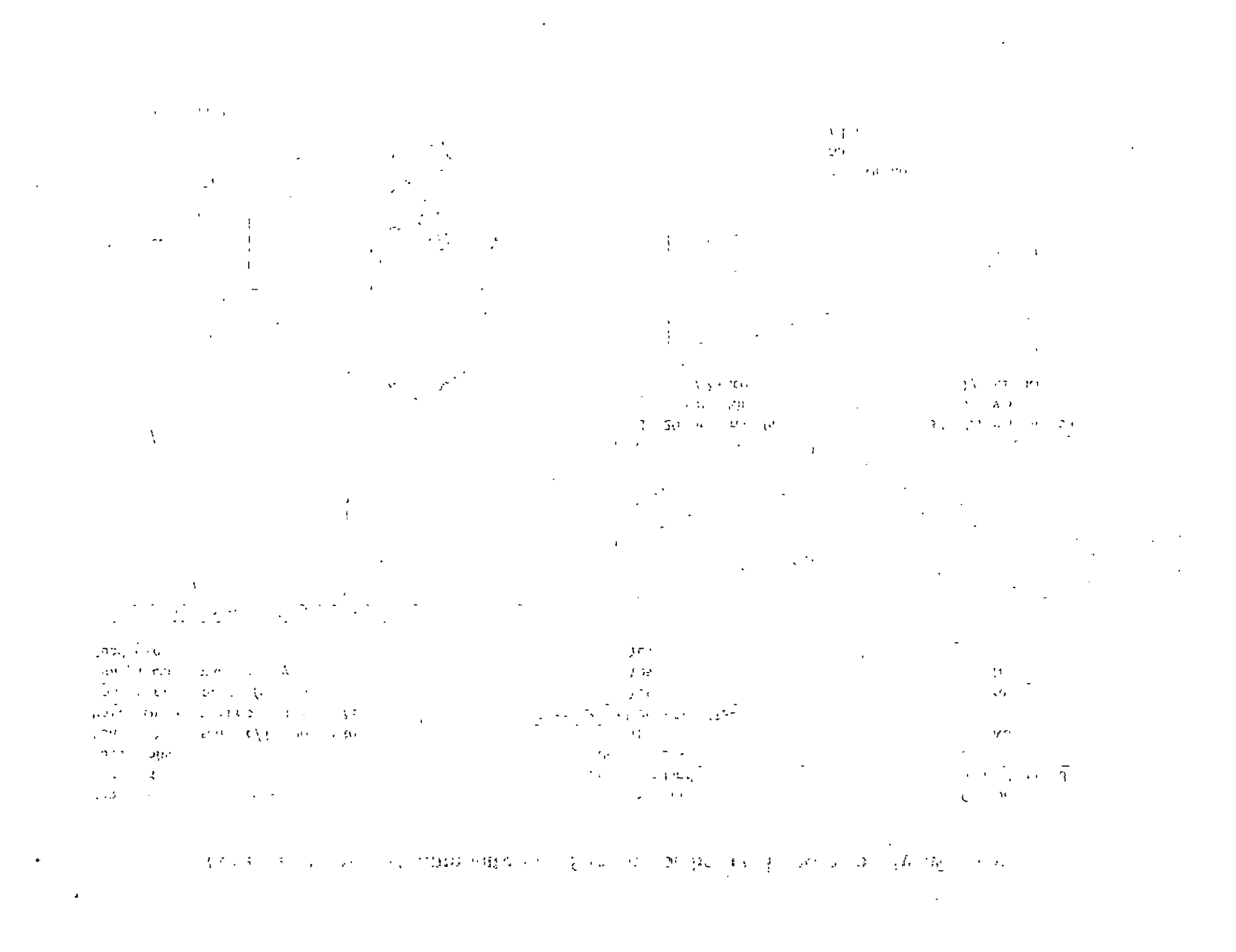
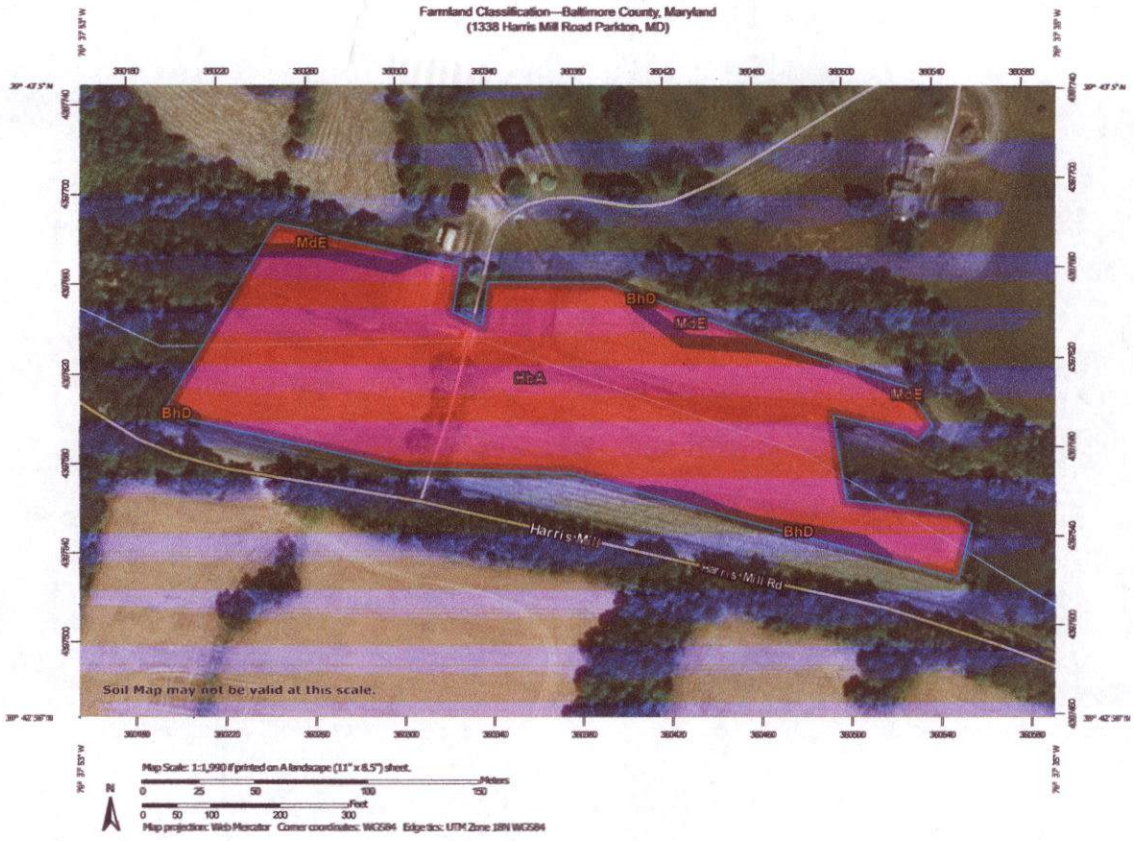


Farmland Classification—Baltimore County, Maryland
(1338 Harris Mill Road Parkton, MD)



Map Scale: 1:1,990 if printed on A landscape (11" x 8.5") sheet.
Meters 0 25 50 100 150
Feet 0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Farmland Classification—Baltimore County, Maryland
(1338 Harris Mill Road Parkton, MD)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
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- Prime farmland if irrigated and reclaimed of excess salts and sodium
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- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
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- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2014—Oct 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BnD	Brinklow channery loam, 15 to 25 percent slopes	Not prime farmland	0.1	1.1%
HbA	Hatboro silt loams, 0 to 3 percent slopes	Not prime farmland	6.3	94.7%
MnE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	Not prime farmland	0.3	4.2%
Totals for Area of Interest			6.6	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Map scale: 1:3,950 if printed on A portrait (8.5" x 11") sheet.
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Farmland Classification—Baltimore County, Maryland
(13220 Long Green Pike Hydes, MD)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
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- Farmland of unique importance
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Soil Rating Points
- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
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- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2014—Oct 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaA	Baile silt loam, 0 to 3 percent slopes	Not prime farmland	7.9	68.4%
BaB	Baile silt loam, 3 to 8 percent slopes	Not prime farmland	0.0	0.1%
BcB	Baltimore gravelly loam, 3 to 8 percent slopes	All areas are prime farmland	0.5	4.4%
LaA	Lindside silt loam, 0 to 3 percent slopes	Prime farmland if protected from flooding or not frequently flooded during the growing season	0.6	5.4%
MnA	Melvin silt loam, 0 to 3 percent slopes	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	1.2	8.8%
WhA	Wilshire silt loam, 0 to 3 percent slopes	All areas are prime farmland	1.0	8.2%
WhB	Wilshire silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.7	5.8%
Totals for Area of Interest			11.9	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Farmland Classification—Baltimore County, Maryland
(13716 Baldwin Mill Road Baldwin, MD)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Rating Polygons
  - Not prime farmland
  - All areas are prime farmland
  - Prime farmland if drained
  - Prime farmland if protected from flooding or not frequently flooded during the growing season
  - Prime farmland if irrigated
  - Prime farmland if irrigated and drained
  - Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if subsoiled, completely removing the root inhibiting soil layer
  - Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
  - Prime farmland if irrigated and reclaimed of excess salts and sodium
  - Prime farmland if protected from flooding or not frequently flooded during the growing season
  - Prime farmland if irrigated and drained
  - Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if subsoiled, completely removing the root inhibiting soil layer
  - Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
  - Prime farmland if irrigated and reclaimed of excess salts and sodium
  - Prime farmland if protected from flooding or not frequently flooded during the growing season
  - Farmland of statewide importance
  - Farmland of local importance
  - Farmland of unique importance
  - Not rated or not available
- Soil Rating Lines
  - Not prime farmland
  - All areas are prime farmland
  - Prime farmland if drained
  - Prime farmland if irrigated
  - Prime farmland if protected from flooding or not frequently flooded during the growing season
  - Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
  - Prime farmland if subsoiled, completely removing the root inhibiting soil layer
  - Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
  - Prime farmland if irrigated and reclaimed of excess salts and sodium
  - Prime farmland if protected from flooding or not frequently flooded during the growing season
  - Farmland of statewide importance
  - Farmland of local importance
  - Farmland of unique importance
  - Not rated or not available

Water Features
- Not rated or not available

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 16, 2014—Oct 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaA	Baile silt loam, 0 to 3 percent slopes	Not prime farmland	6.3	72.1%
BgB	Benevola silt loam, 3 to 8 percent slopes	All areas are prime farmland	1.4	16.2%
WhA	Wiltshire silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.2	2.5%
WhB	Wiltshire silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.8	9.2%
Totals for Area of Interest			8.7	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

632 Freeland Rd.

Slope Calculations

(1) 870' elevation
848' " "
22'

375' run) 22' rise — 0.0586

0.0586
× 100
5.86 % slope

---

(2) 876' elevation
848' " "
28'

400' run) 28' rise — 0.07

0.07
× 100
7% slope

---

(3) 844' elevation
820' " "
24'

300' run) 24' rise — 0.08

0.08
× 100
8% slope

632 FREELAND Rd

SLOPE CALCULATIONS

(4) 868' ELEVATION
824' " "
44'

0.08
550' RUN) 44' RISE

0.08
× 100
8% SLOPE

---

(5) 860' ELEVATION
824' " "
36'

0.09
400' RUN) 36' RISE

0.09
× 100
9% SLOPE

---

(6) 860' ELEVATION
812' " "
48'

0.0827
580' RUN) 48' RISE

0.0827
× 100
8.2% SLOPE

Real Property Data Search

Search Result for HOWARD COUNTY

View Map | View GroundRent Redemption | View GroundRent Registration

Tax Exempt:		Special Tax Recapture:	
Exempt Class:		NONE	
Account Identifier:	**District - 03 Account Number - 339726**		

Owner Information

Owner Name:	FOMUKONG BAN NDEDI MAKANE-ITOE ROSELYN	**Use:** **Principal Residence:**	RESIDENTIAL YES
Mailing Address:	12908 VISTAVIEW DR WEST FRIENDSHIP MD 21794-9551	**Deed Reference:**	/15731/ 00079

Location & Structure Information

Premises Address:	12908 VISTAVIEW DR WEST FRIENDSHIP 21794-0000	**Legal Description:**	LOT 11 40097 SQ 12908 VISTAVIEW DR FOX CHASE ESTATES REVISI

Map:	Grid:	Parcel:	Sub District:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:	15907
0015	0023	0025		2012		9999	11	2019	Plat Ref:	

Special Tax Areas:		**Town:**	NONE
		Ad Valorem:	100
		Tax Class:	

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
2005	4,562 SF	1200 SF	40,097 SF	000000

Stories	Basement	Type	Exterior	Full/Half Bath	Garage	Last Major Renovation
2	YES	STANDARD UNIT	SIDING	4 full/ 1 half	1 Attached	

Value Information

	Base Value	Value As of 01/01/2019	Phase-in Assessments As of 07/01/2018	As of 07/01/2019
Land:	272,600	207,500		
Improvements	516,900	713,500		
Total:	789,500	921,000	789,500	833,333
Preferential Land:	0			0

Transfer Information

Seller: PILLING THOMAS R	**Date:** 08/12/2014	**Price:** $800,000
Type: ARMS LENGTH IMPROVED	**Deed1:** /15731/ 00079	**Deed2:**
Seller: MACNAUGHT GEORGE P	**Date:** 08/02/2010	**Price:** $740,000
Type: ARMS LENGTH IMPROVED	**Deed1:** /12597/ 00295	**Deed2:**
Seller: MACNAUGHT GEORGE P	**Date:** 12/31/2007	**Price:** $0
Type: NON-ARMS LENGTH OTHER	**Deed1:** /11026/ 00164	**Deed2:**

Exemption Information

Partial Exempt Assessments:	Class	07/01/2018	07/01/2019
County:	000	0.00	
State:	000	0.00	
Municipal:	000	0.00|0.00	0.00|0.00

Tax Exempt:		Special Tax Recapture:	
Exempt Class:		NONE	

Homestead Application Information

Homestead Application Status: Approved 09/30/2014

Homeowners' Tax Credit Application Information

Homeowners' Tax Credit Application Status: No Application **Date:**

Protestant
CBA Exhibit
70

Board of Appeals

Case No: 2018-194-X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: People's Counsel Date: 7/24/18

Exhibit No:	Description:
✓ 1	BGE Community Solar Pilot Program Listing
✓ 2	Bill No. 37-17
✓ 3	One Energy Renewable website page
✓ 4	People's Counsel Sign-In Sheet
✓ ID only 5	Site plan breakdown of cropland & other areas
✓ 6	3/13/18 correspondence from Livingston (DEPS) to Stahl
✓ 7	3/27/18 Memo from Andrea Van Arsdale to Arnold Jablon
✓ 8	Memo. of Solar Energy Option Agmt.
✓ 9	My Neighborhood Zoning Link for Soils
✓ ID only 10	USDA website re! Web Soil Survey
✓ 11	Article 1A Resource Conservation Zones
✓ 12	Article 6 Interpretation & Validity §§ 6-102.1 & §6-1.1
✓ 13	§ 33-3-108 - Plan Information
✓ 14	Excerpts from Master Plan 2020
	VERIFIED BY KC DATE: 7/26/18

KC 7/24/18

Inevidence

Zimmerman will supplement

Board of Appeals

Case No: 2018-194X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: People's Counsel Date: 7/25/18 (Day 2)

Exhibit No:	Description:
✓ 15A	Resolution 2010
KC 7/26/18 ✓ ID only 15B	Adoption of Resolution 20-10
✓ 16	§ 32-4-415 Slope Protection & Soils
10/9/18 ✓ 17	Brewer cover letter & USDA-NRCS Soil Map & report
✓ 10A	USDA-NRCS web Soil Survey AOI (area of interest) & Soil Map
✓ ID only 18 Not admitted	9/7/18 Letter from Jack Dillon
✓ 19	~~Map~~ Aerial Map
✓ 20	~~xxx~~ Zoning 2018 Map Showing Zoning Classes
✓ 21	Sparks Glencoe Comm. Planning Council Boundaries
✓ 22	ADC Maps, Street Atlas Balto. City & County excerpts
✓ ID only 23	People's Counsel's Survey; 2020 Master Plan Scenic Routes
✓ 24	3/13/18 Interoffice Corr. from Livingston to ALJ Stahl re: DEPS Comment for Atkinson prop.
✓ 25	Title 3 Table of Contents & §§ 33-3-101, 103 & 109
	VERIFIED BY KC DATE: 1/17/19

Board of Appeals

Case No: 2018-194x Case Name: Charles & Stephen Atkinson

Exhibit List

Party: People's Counsel Date: ~~10~~/9/18 (Day 3)

Exhibit No:	Description:
✓ 26	Title 6 Table of Contents §§33-6101, 105, 106-110
✓ 27	Sign in Sheet 10/9/18
✓ 28	List of ALJ Solar Facility Opinions
✓ 29	Sign in Sheet 11/27/18
	VERIFIED BY KC DATE: 1/17/19

JZ 10/9/18

KC 11/28/18

BGE Community Solar Pilot Program Application Listing

7/2/18 7:54 AM

S-Small/Brown/Oth
O-Open
L-LMI

R-Reserved
I-In-Svc
W-Wait List
WD- Withdrawn

Value 3 Dec pl

Value (1,2,3)

	PSC CSEGS ID	BGE Project ID	Application Date	Applicant	CSEGS Address	CSEGS Zip	(S,O,L) Category	(MW) Size	Expected Operation	(R,I,W) Status	Pilot Year
1	17A2150140003869	4705565	8/3/2017	TPE Maryland Solar Land Holdings, LLC	11956 E Philadelphia Rd	21087	O	2.000	7/31/2018	R	1
2	17A2150690003901	4705992	8/7/2017	Alder Energy Systems, LLC	9203 Dogwood Rd	21244	O	0.900	2/27/2018	R	1
3	17A2150200003873	4705564	8/14/2017	Cypress Creek Renewables LLC	20450 Middletown Rd	21053	O	1.900	11/20/2018	R	1
4	17A2150140003869	4706010	8/22/2017	TPE Maryland Solar Land Holdings, LLC	5403 Nutwell Sudley Road	20778	O	2.000	7/31/2018	R	1
5	17A2149970003865	4705567	8/22/2017	CleanChoice Energy Community, LLC	501 Bayard Road	20711	O	2.000	12/17/2018	R	1
6	17A2150690003901	4706005	8/23/2017	Alder Energy Systems, LLC	10021 OLD COURT RD	21244	O	1.980	2/27/2018	R	1
7	17A2149970003865	4705573	8/25/2017	CleanChoice Energy Community, LLC	5963 Franklin Gibson Road	20779	O	1.329	12/18/2018	R	1
8	17A2149560003861	4705971	8/25/2017	Abundant Solar Power Inc.	1700 Ridgely Street (1.8MW)	21230	S	0.000	12/15/2018	WD	1
9	17A2150210003874	4706013	8/28/2017	Community Energy Solar, LLC	790 Bayard Rd	20711	O	2.000	6/30/2018	R	1
10	17A2149970003865	4705578	8/29/2017	CleanChoice Energy Community, LLC	4913 Sands Rd	20711	L	2.000	9/17/2018	R	1
11	17A2149970003865	4705581	8/29/2017	CleanChoice Energy Community, LLC	632 Freeland Rd	21053	L	2.000	9/17/2018	R	1
12	17A2149970003865	4705577	8/29/2017	CleanChoice Energy Community, LLC	1139 Monkton Rd	21111	O	2.000	9/17/2018	R	1
13	17A2150200003873	4706022	8/30/2017	Cypress Creek Renewables LLC	14466 Green Rd	21013	O	2.000	8/30/2018	W	1
14	17A2148980003856	4705584	9/1/2017	Forefront Power, LLC	19735 Graystone Rd	21161	O	0.840	6/30/2018	W	1
15	17A2150700003900	4705605	9/6/2017	Earth and Air Technologies LLC	2117 Old New Windsor Pike	21771	L	1.950	1/31/2018	R	1
16	17A2150570003894	4705590	8/30/2017	SGC Power LLC	17800 Queen Anne Bridge Road	20716	O	1.584	8/30/2018	W	1
17	17A2148980003856	4705580	9/7/2017	Forefront Power, LLC	2316 Ridge Road(1.980MW)	21244	L	0.000	6/30/2018	WD	1
18	17A2148980003856	4705607	9/7/2017	Forefront Power, LLC	9155 Old Court Rd	21244	L	1.980	6/30/2018	R	1
19	17A2150800003903	4706009	9/6/2017	New Source Generation LLC	15700 Hanover Pike	21155	O	0.990	2/1/2018	W	1
20	17C2149980003866	4705614	9/20/2017	Groundswell	4221 Primrose Ave	21215	L	0.322	12/31/2018	R	1
21	17A2150280003875	4705600	9/22/2017	ESA Sparks Glenco, LLC	15637 York Road	21152	L	1.849	8/31/2018	R	1
22	17B2149960003864	4725902	9/26/2017	Cambridge Flats LLC	2114 Cambridge Street	21231	S	0.00993	4/4/2018	I	1
23	17C2150240003909	4706027	3/22/2018	Power 52 Foundation	11898 Philadelphia Road	21162	S	2.000	7/31/2018	R	1

People's Counsel
CBA Exhibit
/

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2017, Legislative Day No. 11

Bill No. 37-17

Mrs. Vicki Almond, Councilwoman

By the County Council, June 5, 2017

A BILL
ENTITLED

AN ACT concerning

Solar Facilities

FOR the purpose of permitting a Solar Facility to be located in certain zones of the County by special exception; providing for a statement of purpose and defining terms; providing exceptions; providing for the requirements for a facility; providing for a required security; providing for the maintenance, abandonment, and removal of a facility; authorizing the Code Official to enforce the provisions of this Act; providing for the application of the Act; and generally relating to Solar Facilities.

BY adding
Article 4E – Solar Facilities
Sections 4E-101 to 4E-107
Baltimore County Zoning Regulations, as amended

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter stricken from existing law.
~~Strike-out~~ indicates matter stricken from bill.
Underlining indicates amendments to bill.

BY repealing and re-enacting, with amendments
Article 5 – Administration and Enforcement
Section 502.1.I.
Baltimore County Zoning Regulations, as amended

SECTION I. BE IT ENACTED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the Baltimore County Zoning Regulations read as follows:

ARTICLE 4E

SOLAR FACILITIES

§4E-101. PURPOSE AND DEFINITIONS.

§4E-101.1. PURPOSE.

SOLAR ENERGY IS RECOGNIZED AS AN ABUNDANT, RENEWABLE, AND ENVIRONMENTALLY SUSTAINABLE SOURCE OF ELECTRICITY GENERATION THAT WILL LEAD TO GREATER LOCAL GRID RESILIENCY AND SECURITY, AND PRODUCE CLEAN, RENEWABLE ENERGY AND REDUCE AIR AND WATER POLLUTION CAUSED BY THE BURNING OF TRADITIONAL FOSSIL FUELS. THE PURPOSE AND INTENT OF THIS ARTICLE IS TO PERMIT SOLAR FACILITIES IN PARTS OF THE RURAL AND COMMERCIAL AREAS OF THE COUNTY BY SPECIAL EXCEPTION, AND TO BALANCE THE BENEFITS OF SOLAR ENERGY PRODUCTION WITH ITS POTENTIAL IMPACT UPON THE COUNTY'S LAND USE POLICIES BY ENSURING SUFFICIENT SAFEGUARDS ARE IN PLACE TO PROTECT THE COUNTY'S COMMUNITIES AND ITS AGRICULTURAL LAND, FORESTS, WATERWAYS AND OTHER NATURAL RESOURCES.

People's Counsel
CBA Exhibit
2

§4E-101.2. DEFINITIONS.

AS USED IN THIS ARTICLE, THE FOLLOWING TERMS HAVE THE MEANINGS INDICATED:

A. "SOLAR FACILITY" MEANS A FACILITY THAT INCLUDES A SERIES OF ONE OR MORE SOLAR COLLECTOR PANELS OR SOLAR ENERGY SYSTEMS THAT ARE PLACED IN AN AREA ON A TRACT OF LAND FOR THE PURPOSE OF GENERATING PHOTOVOLTAIC POWER FOR COMMERCIAL USE. THE TERM INCLUDES A SOLAR POWER PLANT OR SOLAR PHOTOVOLTAIC FARM.

B. "COMMERCIAL USE" MEANS THE TRANSFER TO THE ELECTRICAL POWER GRID OF ENERGY PRODUCED BY A SOLAR FACILITY FOR SALE BY ENERGY SUPPLIERS TO CONSUMERS.

§4E-102. LOCATION OF SOLAR FACILITIES.

A. SUBJECT TO PARAGRAPH B, A SOLAR FACILITY IS PERMITTED ONLY BY SPECIAL EXCEPTION IN THE R.C.2, R.C.3, R.C.4, R.C.5, R.C.6, R.C.7, R.C.8, B.L., B.M., M.R., M.L.R., AND M.H. ZONES OF THE COUNTY.

B. THE ALLOCATION OF LAND FOR SOLAR FACILITIES IN THE COUNTY IS LIMITED TO THE FOLLOWING:

1. THE MAXIMUM AREA PERMITTED FOR A SINGLE SOLAR FACILITY IS THE AMOUNT OF ACREAGE THAT PRODUCES NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.

2. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT.

3. THE DIRECTOR OF PERMITS, APPROVALS AND INSPECTIONS SHALL MAINTAIN A RECORD OF ALL PERMITS ISSUED FOR A SOLAR FACILITY IN THE COUNTY, INCLUDING THE LOCATION AND COUNCILMANIC DISTRICT FOR EACH SUCH FACILITY, AND SHALL KEEP A CURRENT ACCOUNTING OF THE NUMBER OF FACILITIES IN EACH COUNCILMANIC DISTRICT UNDER THIS PARAGRAPH.

4. UPON REACHING THE THRESHOLD OF TEN (10) SOLAR FACILITIES IN A COUNCILMANIC DISTRICT, NO ADDITIONAL PERMITS SHALL BE ISSUED FOR A SOLAR FACILITY IN THAT DISTRICT UNLESS AN EXISTING FACILITY PREVIOUSLY APPROVED UNDER THIS ARTICLE HAS BEEN REMOVED PURSUANT TO SECTION 4E-107.

§4E-103. EXCEPTION.

THIS ARTICLE DOES NOT APPLY TO THE FOLLOWING SOLAR FACILITY INSTALLATIONS:

1. A GROUND-MOUNTED SOLAR FACILITY ~~LOCATED IN A YARD AREA, BUILDING, OR STRUCTURE THAT IS ACCESSORY TO A PRINCIPAL RESIDENTIAL, AGRICULTURAL, COMMERCIAL OR INSTITUTIONAL USE~~ THAT IS ACCESSORY TO A PRINCIPAL RESIDENTIAL OR AGRICULTURAL USE (SUBJECT TO SECTIONS 400.1 AND 400.2 OF THESE REGULATIONS APPLICABLE TO ACCESSORY BUILDINGS), OR ACCESSORY TO A PRINCIPAL COMMERCIAL, INDUSTRIAL, OR INSTITUTIONAL USE;

2. A ROOFTOP SOLAR FACILITY;

~~2~~ 3. A SOLAR FACILITY ON FEDERAL, STATE OR LOCAL GOVERNMENT-OWNED OR LEASED LAND THAT PRODUCES ENERGY FOR GOVERNMENT USE; OR

~~3~~ 4. A SOLAR FACILITY LOCATED ON THE SAME PROPERTY OR TRACT AS A FARM THAT USES AT LEAST 66% OF THE ENERGY GENERATED BY THE FACILITY FOR AGRICULTURAL USES ON THE FARM.

§4E-104. REQUIREMENTS.

A. A SOLAR FACILITY LOCATED IN AN R.C. ZONE IS SUBJECT TO THE FOLLOWING REQUIREMENTS:

1. THE LAND ON WHICH A SOLAR FACILITY IS PROPOSED MAY NOT BE ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT, OR A RURAL LEGACY EASEMENT.

2. THE LAND ON WHICH A SOLAR FACILITY IS PROPOSED MAY NOT BE LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT OR ON A PROPERTY THAT IS LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.

3. THE PORTION OF LAND ON WHICH A SOLAR FACILITY IS PROPOSED MAY NOT BE IN A FOREST CONSERVATION EASEMENT, OR BE IN A DESIGNATED CONSERVANCY AREA IN AN R.C.4 OR R.C.6 ZONE.

4. ABOVEGROUND COMPONENTS OF THE SOLAR FACILITY, INCLUDING SOLAR COLLECTOR PANELS, INVERTERS, AND SIMILAR EQUIPMENT, MUST BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY. THIS SETBACK DOES NOT APPLY TO THE INSTALLATION OF THE ASSOCIATED LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES.

5. A STRUCTURE MAY NOT EXCEED 20 FEET IN HEIGHT.

6. A LANDSCAPING BUFFER SHALL BE PROVIDED AROUND THE PERIMETER OF ANY PORTION OF A SOLAR FACILITY THAT IS VISABLE FROM AN ADJACENT RESIDENTIALLY USED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS IS REQUIRED IN ACCORDANCE WITH THE BALTIMORE COUNTY LANDSCAPE MANUAL.

7. SECURITY FENCING SHALL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.

8. A SOLAR COLLECTOR PANEL OR COMBINATION OF SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS, AND DOES NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.

9. A PETITIONER SHALL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE COUNTY CODE.

10. IN GRANTING A SPECIAL EXCEPTION, THE ADMINISTRATIVE LAW JUDGE, OR BOARD OF APPEALS ON APPEAL, MAY IMPOSE CONDITIONS OR RESTRICTIONS ON THE SOLAR FACILITY USE AS NECESSARY TO PROTECT THE ENVIRONMENT AND SCENIC VIEWS, AND TO LESSEN THE IMPACT OF THE FACILITY ON THE HEALTH, SAFETY, AND GENERAL WELFARE OF SURROUNDING RESIDENTIAL PROPERTIES AND COMMUNITIES, TAKING INTO ACCOUNT SUCH FACTORS AS THE TOPOGRAPHY OF ADJACENT LAND, THE PRESENCE OF NATURAL FOREST BUFFERS, AND PROXIMITY OF STREAMS AND WETLANDS.

B. THE REQUIREMENTS OF SUBPARAGRAPHS A.6, A.7, A.8 AND A.10 SHALL APPLY TO A SOLAR FACILITY LOCATED IN A BUSINESS OR MANUFACTURING ZONE.

§ 4E-105. REQUIRED SECURITY.

A. AN APPLICANT FOR A BUILDING PERMIT FOR A SOLAR FACILITY SHALL PROVIDE A SECURITY BOND OR EQUIVALENT FINANCIAL SECURITY IN THE FORM AND AMOUNT DETERMINED BY THE COUNTY ADMINISTRATIVE OFFICER.

B. THE CODE OFFICIAL MAY USE THE BOND TO PROCURE THE REPAIR OF ANY UNSAFE OR HAZARDOUS CONDITIONS UNDER SECTION 4E-106 OR REMOVAL OF A SOLAR FACILITY UNDER SECTION 4E-107, IN ACCORDANCE WITH SECTION 3-6-402 OF THE COUNTY CODE.

§4E-106. MAINTENANCE.

A. ALL PARTIES HAVING A LEASE OR OWNERSHIP INTEREST IN A SOLAR FACILITY ARE RESPONSIBLE FOR THE MAINTENANCE OF THE FACILITY.

B. MAINTENANCE SHALL INCLUDE PAINTING, STRUCTURAL REPAIRS, LANDSCAPE BUFFERS AND VEGETATION UNDER AND AROUND SOLAR PANEL STRUCTURES, AND INTEGRITY OF SECURITY MEASURES. ACCESS TO THE FACILITY SHALL BE MAINTAINED IN A MANNER ACCEPTABLE TO THE FIRE DEPARTMENT. THE OWNER, OPERATOR, OR LESSEE ARE RESPONSIBLE FOR THE COST OF MAINTAINING THE FACILITY AND ANY ACCESS ROADS.

C. APPROPRIATE VEGETATION IS PERMITTED UNDER AND AROUND THE SOLAR

COLLECTOR PANELS, AND THE TRACT MAY BE USED FOR ACCESSORY AGRICULTURAL PURPOSES, INCLUDING GRAZING OF LIVESTOCK, APICULTURE, AND SIMILAR USES.

D. THE PROVISIONS ON THIS SECTION SHALL BE ENFORCED IN ACCORDANCE WITH ARTICLE 3, TITLE 6 OF THE COUNTY CODE.

§4E-107. ABANDONMENT; REMOVAL.

A. A SOLAR FACILITY THAT HAS REACHED THE END OF ITS USEFUL LIFE OR HAS BEEN ABANDONED SHALL BE REMOVED. THE OWNER OR OPERATOR SHALL PHYSICALLY REMOVE THE INSTALLATION NO MORE THAN 150 DAYS AFTER THE DATE OF DISCONTINUED OPERATIONS. THE OWNER OR OPERATOR SHALL NOTIFY THE COUNTY BY CERTIFIED MAIL OF THE PROPOSED DATE OF DISCONTINUED OPERATIONS AND PLANS FOR REMOVAL.

B. REMOVAL SHALL CONSIST OF THE:

1. PHYSICAL REMOVAL OF ALL SOLAR ENERGY SYSTEMS, STRUCTURES, EQUIPMENT, SECURITY BARRIERS AND TRANSMISSION LINES FROM THE SITE;

2. DISPOSAL OF ALL SOLID AND HAZARDOUS WASTE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL WASTE DISPOSAL REGULATIONS; AND

3. STABILIZATION OR RE-VEGETATION OF THE SITE AS NECESSARY TO MINIMIZE EROSION.

C. IF THE OWNER OR OPERATOR FAIL TO REMOVE THE FACILITY WITHIN 150 DAYS OF ABANDONMENT, THE COUNTY RETAINS THE RIGHT TO ENTER AND REMOVE THE FACILITY. AS A CONDITION OF SPECIAL EXCEPTION APPROVAL,

THE PETITIONER AND LANDOWNER AGREE TO ALLOW ENTRY TO REMOVE AN ABANDONED FACILITY.

D. THE CODE OFFICIAL MAY ISSUE A CITATION TO THE OWNER OR OPERATOR FOR REMOVAL OF A SOLAR FACILITY IF:

1. THE CODE OFFICIAL DETERMINES THAT THE SOLAR FACILTY HAS NOT BEEN IN ACTUAL AND CONTINUOUS USE FOR 12 CONSECUTIVE MONTHS;

2. THE OWNER OR OPERATOR FAILED TO CORRECT AN UNSAFE OR HAZARDOUS CONDITION OR FAILED TO MAINTAIN THE SOLAR FACILITY UNDER SECTION 4E-106 WITHIN THE TIME PRESCRIBED IN A CORRECTION NOTICE ISSUED BY THE CODE OFFICIAL; OR

3. THE OWNER OR OPERATOR HAS FAILED TO REMOVE THE SOLAR FACILITY IN ACCORDANCE WITH PARAGRAPH C.

§502.1. Conditions Determining Granting of Special Exception.

Before any special exception may be granted, it must appear that the use for which the special exception is requested will not:

I. Be detrimental to the environment and natural resources of the site and vicinity including forests, streams, wetlands, aquifers and floodplains in an R.C.2, R.C.4, R.C.5, or R.C.7 Zone, AND FOR CONSIDERATION OF A SOLAR FACILITY USE UNDER ARTICLE 4E, THE INCLUSION OF THE R.C.3, R.C.6, AND R.C.8 ZONE.

SECTION 2. AND BE IT FURTHER ENACTED, that the Planning Board shall, in consultation with the Departments of Planning and Environmental Protection and Sustainability,

and with participation of the Baltimore County Commission on Environmental Quality, representatives of the Solar Industry, the Sierra Club's Greater Baltimore Group, and the Valleys Planning Council, study and evaluate the impact of Solar Facilities in Baltimore County and the effect of Article 4E of these Regulations, and by July 1, 2018 submit recommendations to the County Council and the County Executive regarding potential changes to current law.

SECTION 3. AND BE IT FURTHER ENACTED, that this Act, having been passed by the affirmative vote of five members of the County Council, shall take effect on July 17, 2017 and shall apply retroactively to any zoning petition filed after October 18, 2016.

READ AND PASSED this 3rd day of JULY, 2017.

BY ORDER

Thomas J. Peddicord, Jr.
Secretary

PRESENTED to the County Executive for his approval this 5th day of JULY, 2017.

Thomas J. Peddicord, Jr.
Secretary

APPROVED AND ENACTED:

July 12, 2017

Kevin B. Kamenetz
County Executive

I HEREBY CERTIFY THAT BILL NO. 37-17 IS TRUE AND CORRECT AND TOOK EFFECT ON July 17, 2017.

Tom Quirk
Chairman, County Council

www.oneenergyrenewables.com/landowners/

COMMONLY ASKED QUESTIONS

Our solar farms range in size from 15 acres to hundreds of acres. A 3 MW solar farm can be built on about 15 acres and generate enough energy to power roughly 500 homes. A 100-acre site can power an entire town or more. All from a source that's about as renewable as it gets: sunshine.

WILL IT PROVIDE MY HOME WITH ELECTRICITY?

CAN I STILL FARM OTHER CROPS WHILE THERE'S A SOLAR FARM ON MY PROPERTY?

WILL I BE ABLE TO SEE MY SOLAR FARM?

ARE SOLAR FARMS NOISY?

DOES A SOLAR FARM USE WATER?

WILL A SOLAR FARM CAUSE ANY GLARE ISSUES?

ARE SOLAR FARMS SAFE?

HOW LONG DOES IT TAKE TO BUILD A SOLAR FARM?

People's Counsel
CBA Exhibit
3

People's Counsel Sign-In Sheet

People's Counsel
CBA Exhibit
4

Case Name: ATKINSON / 632 Freeland Road
Case No.: 2018-194-X
Date: July 24, 2018

The Office of People's Counsel was created by the County Charter to participate in zoning matters on behalf of the public interest. While it does not actually represent community groups or protestants, it will assist in the presentation of their concerns, whether they have their own attorney or not. If you wish to be assisted by People's Counsel, please sign below.

Check to testify	Name	Address	Phone #	Email	Group you represent	Basis of your concerns
✓	ROBERT ROHE	21712 ORWIG RD	410-343-0145	BOBROHE@GMAIL.com		SCENIC/LOSS of PRIME FAR
✓	JOHN ALTMEYER	21722 ORWIG Rd	410-357-5205	Jaltmeyer@aol.com		GRADING/CLEANING
✓	LYNNE JONES	815 STABLERS CHURCH RD	410-343-1468	dryad101@hotmail.com		
✓	KATHIE PIEPER	4310 BECKLEYSVILLE RD	443-941-7177	KNOTGARDEN57@COMCAST.NET		LOSS OF PRIME FARMLAND SCENIC + ENVIRONMENT
✓	L Jeanne Bowman	2709 Flintstone Rd	443-960-5311	LJeanneBowman@Aol.com		" "
	S.A. SCAVONE	20220 MIDDLETOWN RD	4103296469		FREELAND LEGACY ALLIANCE	LOSS OF PRIME FL
✓	Nadine Lentz	21718 Orwig Rd	410-357-8712	DonaldLentz@comcast.net		Loss of Farmland/Value Hse Scenic
	George W. Della	4331 Church Rd 21074	443-794-3600	georgewdella@yahoo.com		
	Megan Billingsley	118 W Pennsylvania Towson 21285	410-337-6877	megan@theupcourt	VPC	prime & productive / best use of land

Atkinson case --- 2018-194-X, 632 Freeland Road

Site Plan breakdown of cropland and other areas, prepared by People's Counsel PMZ

Entire site: 99.46 acres

Special exception area, existing farm crop area: 18.92 acres
(14.6 fenced and 5 to west, per Mr. Durette)

Triangle to the north of special exception area, based on scale of 1" = 200'

3" x 3" --- 600' x 600' = 360,000 sq ft
360,000 sq ft/143,560 (sq ft per acre) = 8.2 acres for approximate rectangle

Divide in half for approximate triangle to calculate 4 acres
(consistent with David Martin's estimate)

Eyeballing it looks to be about right compared to 5 acre west side area

Roughly trapezoidal farm crop area to east of special exception area

Approximate 6" length x 5" --- 1200' x 1000' = 1,200,000 sq ft
1,200,000 sq ft/43,560 sq ft = 27.5 acres

Remaining areas closer to Freeland Road: Streams, wetlands, floodplain, forest, residence

Cropland summary

19 acres (SE area) + 4 acres (north triangle) + 27 acres = 50 acres

Remaining area = 49-50 acres

People's Counsel
CBA Exhibit
ID only 5

BALTIMORE COUNTY, MARYLAND

Inter-Office Correspondence

TO: Hon. Lawrence M. Stahl; Managing Administrative Law Judge
Office of Administrative Hearings

FROM: Jeff Livingston, Department of Environmental Protection and Sustainability (EPS) - Development Coordination

DATE: March 13, 2018

SUBJECT: DEPS Comment for Zoning Item # 2018-0194-X
Address 632 Freeland Road
(Atkinson Property)

Zoning Advisory Committee Meeting of **February 16, 2018.**

X The Department of Environmental Protection and Sustainability offers the following comments on the above-referenced zoning item:

X Development of the property must comply with the Regulations for the Protection of Water Quality, Streams, Wetlands and Floodplains (Sections 33-3-101 through 33-3-120 of the Baltimore County Code).

X Development of this property must comply with the Forest Conservation Regulations (Sections 33-6-101 through 33-6-122 of the Baltimore County Code).

Additional Comments:

1. In order to meet State – mandated stormwater management requirements and minimize water quality impacts, the project must be designed and constructed in accordance with the attached Maryland Department of the Environment solar panel installation guidance document as part of the permit approval process.

2. Construction and operation of this solar facility must comply with Article 4E, Sections 104, 106, and 107 of County Code, in that all onsite streams, wetlands, associated buffers, and forest shall be adequately protected.

Reviewer: Stephen Ford, Development Coordination
Libby Errickson, Environmental Impact Review

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CBA Exhibit
6

People's Counsel
CBA Exhibit
7

BALTIMORE COUNTY, MARYLAND
INTER-OFFICE MEMORANDUM

TO: Arnold Jablon
Deputy Administrative Officer and
Director of Permits, Approvals and Inspections

DATE: 3/27/2018

FROM: Andrea Van Arsdale
Director, Department of Planning

SUBJECT: **ZONING ADVISORY COMMITTEE COMMENTS**
Case Number: 18-194

INFORMATION:

Property Address:	632 Freeland Road
Petitioner:	Charles Gary Atkinson, Stephen Gordon Atkinson
Zoning:	RC 2
Requested Action:	Special Exception

The Department of Planning has reviewed the petition for a special exception to use the property for a solar facility.

A site visit was conducted on February 15, 2018. The site is situated in proximity to, but not contiguous with, two substantial agricultural preservation easements.

The Department has no objection to granting the petitioned zoning relief conditioned upon the following firmly held condition:

- The overall tract is located on Oakland Road and Freeland Road, both being designated as a Baltimore County Scenic Route. Baltimore County recognizes the value of its rural areas through resource based protective laws addressing its agricultural, historic, cultural, and environmental assets (CMDP pg.177). The CMDP further states "*designating scenic protection adds aesthetic-based standards to these resource-based ones, and makes the goal of preserving views from scenic routes explicit.*" (CMDP pg.175). The Master Plan 2020 confirms that the "*preservation and enhancement of scenic resources is an essential component contributing to the quality of life of residents.*" (MP2020 pg.99). A majority of the subject site road frontage on Oakland Road presents a broad vista extending beyond the road edge. The Department finds the scenic views on these roads are "expansive" as that term is defined within the Comprehensive Manual of Development Policies (CMDP pg.177).

- Any landscape plan submitted for review and approval shall reflect the following Scenic Route requirements:
The Department will not support an unbroken planted screen along and adjacent to the Oakland and Freeland Road frontages. The Department recommends that any landscape screening be specific to the solar compound (compound) in its location. This would take the form of a mix of native deciduous, evergreen and flowering trees with understory shrubs situated in beds having a minimum width of 30' which would ring the compound. The landscape screening would flair out in a naturalistic way to engage the existing copse

of trees situated on the east of the compound and also extend a planted mass projecting from the southwest corner of the compound outwards to the edge of Oakland Road. If treated in this fashion, no further planting is required along the scenic routes thus preserving the existing expansive view for that time in the future such as the solar compound is removed.

The following conditions are offered in addition to the above:

- If approved, Petitioners shall submit to this Department at the time of building permit application the final fixed location and area of the facility by coordinate data so that an inventory may be kept.
- Lighting shall be limited to what is required for security purposes only and will be sited in such a way as to have minimal spillage onto neighboring properties.
- Signage shall be limited to that which is necessary for safety and security purposes.
- No deliveries or outdoor maintenance which may generate excessive noise may occur on-site between the hours of 6 P.M. through 6 A.M
- Pursuant to BCZR §502.1.A, petitioners shall demonstrate to the satisfaction of the Administrative Law Judge that the facility will not be detrimental to the adjacent residential properties as a result of glare emanating from the facility.

For further information concerning the matters stated herein, please contact Wally Lippincott at 410-887-3480.

Prepared by:

Lloyd T. Moxley

Deputy Director:

Jeff Mayhew

AVA/KS/LTM/

c: Wally Lippincott
James Hermann, R.L.A., Department of Permits, Approvals and Inspections
Adam M. Rosenblatt, Esquire
Office of the Administrative Hearings
People's Counsel for Baltimore County

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0001, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

MEMORANDUM OF SOLAR ENERGY OPTION AGREEMENT

THIS MEMORANDUM OF SOLAR ENERGY OPTION AGREEMENT (the "Memorandum"), is effective as of the Effective Date (hereinafter defined) by and between Landowner (hereinafter defined) and Company (hereinafter defined). Landowner and Company may hereafter be referred to as, together, the "Parties" and each, a "Party".

RECITALS

A. Landowner is the owner of the property described on **Exhibit A** attached hereto and made a part hereof for all purposes (the "Property").

B. Landowner and Company have entered into a certain Solar Energy Option Agreement (the "Option Agreement") dated as of the Effective Date, which Option Agreement concerns the Property.

C. The Parties wish to enter into this Memorandum in order to put third parties on record notice of Tenant's rights with respect to the Property.

AGREEMENT

IN CONSIDERATION of the foregoing and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties hereto agree as follows:

1. **Recitals**. The recitals set forth above are agreed to be true and correct and form a part hereof as though fully set forth herein.

2. **Definitions**. Any capitalized terms not otherwise defined herein shall have the definitions given such terms in the Option Agreement. Additionally, the following terms have the definitions ascribed to such terms in the table below:

Term	Definition
"Effective Date"	The date this Memorandum is fully executed, as evidenced by the latest date below the signature lines of each Party
"Landowner" (and address)	Charles Gary Atkinson and Stephen Gordon Atkinson Whose address for notice purposes hereunder is: 632 Freeland Road Freeland, MD 21053 Email: cga632@gmail.com Telephone: (410) 343-9421 – Charles cell

LR - Agreement
Recording Fee 20.00
Grantor/Grantee Name:
Charles Gary Atkinson
Reference/Control #:
LR - Agreement
Surcharge 40.00
==========
SubTotal: 60.00
==========
Total: 60.00
09/08/2016 01:05
CC03-CG
#6879416 CC0301 -
Baltimore
County/CC03.01.04 -
Register 04

People's Counsel
CBA Exhibit
8

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0002, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

"Company" (and address)	OneEnergy Development, LLC Whose address for notice purposes hereunder is: Contracts Administration 2003 Western Avenue, Suite 225 Seattle, WA 98121 facsimile: 206-922-7079 email: accounting@oneenergyrenewables.com
"Option Term"	The period commencing on the Effective Date and terminating on the Termination Date.
"Termination Date"	The fifth (5th) anniversary of the Effective Date.
"Solar Rights"	The right to capture the unobstructed flow of all radiant energy emitted from the sun upon, over and across the Leased Premises or any portion of the Leased Premises for electric power, heat and/or steam generation purposes, including the right to construct, operate and maintain solar energy conversion systems, including, without exclusion, solar photovoltaic panels (including concentrating solar photovoltaic equipment), solar resource measurement equipment, support structures, foundations, pads, footings, fencing, electrical inverters and transformers, meters, switches, breakers, fixtures, equipment storage, electric wiring, distribution and transmission lines, access roads, interconnection facilities and related structures and facilities and equipment, together with certain easement and/or leasehold rights for access, utilities and other appurtenant rights to the foregoing.
"Leased Premises"	That portion of the Property to be identified by Company during the Option Term on which Company intends to construct solar energy conversion systems or otherwise make subject to the Lease, a preliminary sketch of which is attached as **Exhibit A-1**

3. **Grant of Option**. Landowner has granted Company an exclusive, irrevocable Option to lease the Solar Rights relating to the Leased Premises, which Option shall be in effect during the Option Term for so long as the Option Price is paid to Landowner by Company as set forth in the Option Agreement.

4. **Exercise of Option.** Company may exercise the Option by giving written notice of such exercise to Landowner at any time during the Option Term and delivering to Landowner a Lease Agreement in a form prepared by Company containing the terms set forth in the Option Agreement.

5. **Successors and Assigns.** This Memorandum and the Option Agreement shall run with the land. Either Party may without the consent of the other assign its interest in this Memorandum and the Option Agreement. Any assignment shall be subject to the terms and requirements of the Option Agreement.

This Memorandum and the Option Agreement shall inure to the benefit of and be binding upon the parties, their heirs, successors and assigns.

6. **Conflicts**. This Memorandum does not supersede, modify, amend or otherwise change the terms, conditions or covenants of the Option Agreement, and Landowner and Company executed and are recording this Memorandum for the purposes set forth herein and for providing constructive notice of the Option Agreement and Tenant's rights thereunder and hereunder. The terms, conditions and covenants of the Option Agreement are fully set forth therein and are incorporated herein by reference as though fully set forth herein. This Memorandum shall not, in any manner or form whatsoever, alter modify or vary the terms, covenants and conditions of the Option Agreement. In the event of a conflict between this Memorandum and the Option Agreement, the Option Agreement shall control.

7. **Counterparts**. This Memorandum may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

SIGNATURES TO FOLLOW ON NEXT PAGE

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0003, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

IN WITNESS WHEREOF, the Parties have executed this Memorandum to be effective as of the date appearing after the last of the Parties' signatures below (the "Effective Date").

Landowner	Company:
By: _____ Name: Charles Gary Atkinson Date: 6/24/16 By: _____ Name: Stephen Gordon Atkinson Date: 6-24-2016	One Energy Development, LLC By: _____ Name: Travis J. Bayer Title: Chief Operating Officer Date: 6/30/2016

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0004, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

STATE OF WASHINGTON)
)ss.
COUNTY OF KING)

On the 30th day of June, 2016, personally appeared Travis Bryan, the MANAGING MEMBER of ONEENERGY DEVELOPMENT, LLC, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Washington, County of King, that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

CLAIRE MICHAEL
NOTARY PUBLIC
COMM. EXPIRES
AUG 27, 2019
STATE OF WASHINGTON

Notary Public

My commission expires: August 27, 2019

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0005, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

STATE OF MARYLAND)
)ss.
COUNTY OF Baltimore)

On the 24th day of June, 2016, personally appeared Charles Gary Atkinson who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Maryland, County of Baltimore, that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Julie Ann Stamper
Notary Public

JULIE ANN STAMPER
Notary Public
Harford County
Maryland
My Commission Expires June 21, 2020

My commission expires: 6/21/2020.

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0006, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

STATE OF MARYLAND)
)ss.
COUNTY OF Baltimore)

On the 24th day of June, 2016, personally appeared Stephen Gordon Atkinson who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Maryland, County of Baltimore, that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Julie Ann Stamper
Notary Public

JULIE ANN STAMPER
Notary Public
Harford County
Maryland
My Commission Expires June 21, 2020

My commission expires: 6/21/2020

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0007, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0008, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

EXHIBIT A TO MEMORANDUM OF LEASE

MAP AND DESCRIPTION OF THE PROPERTY

That certain properties known by Maryland State Department of Assessment and Taxation as:

Map: 0003 Grid: 0019 Parcel: 0017
District – 07 Account Number 0701089060

Located in Baltimore County and totaling approximately ninety-nine and 46/100 (99.46) acres ("Property").

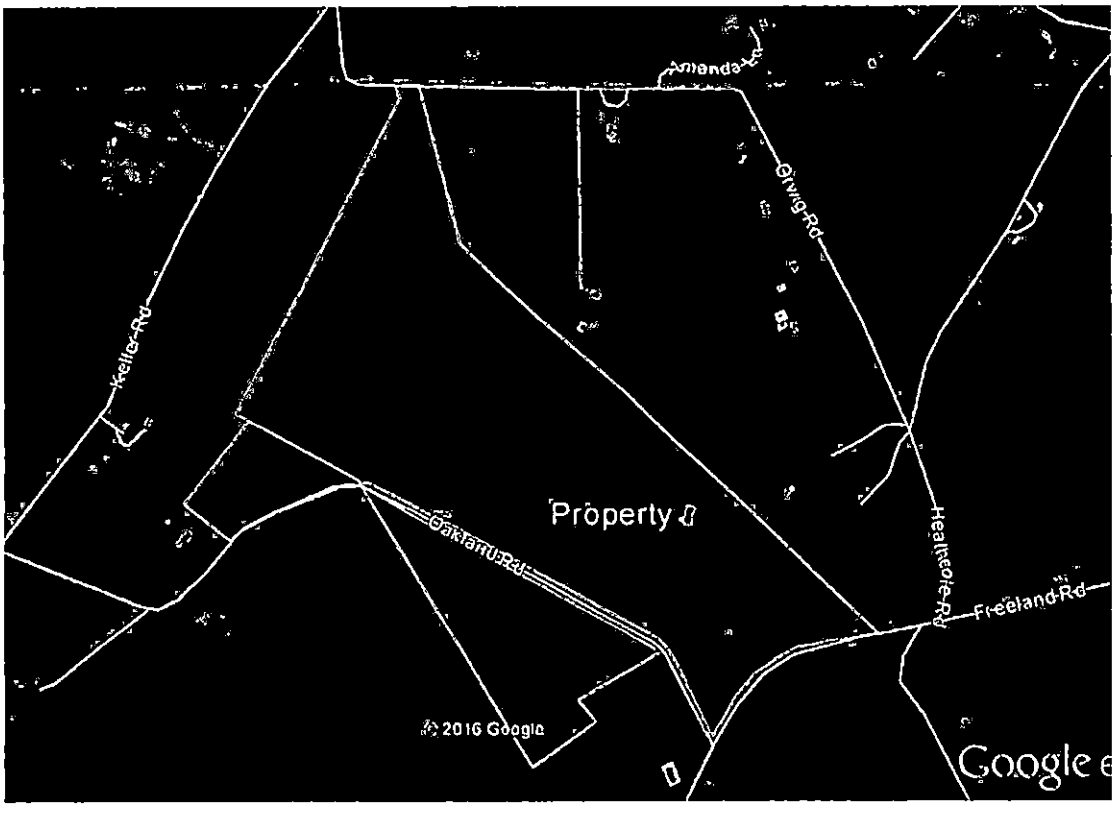
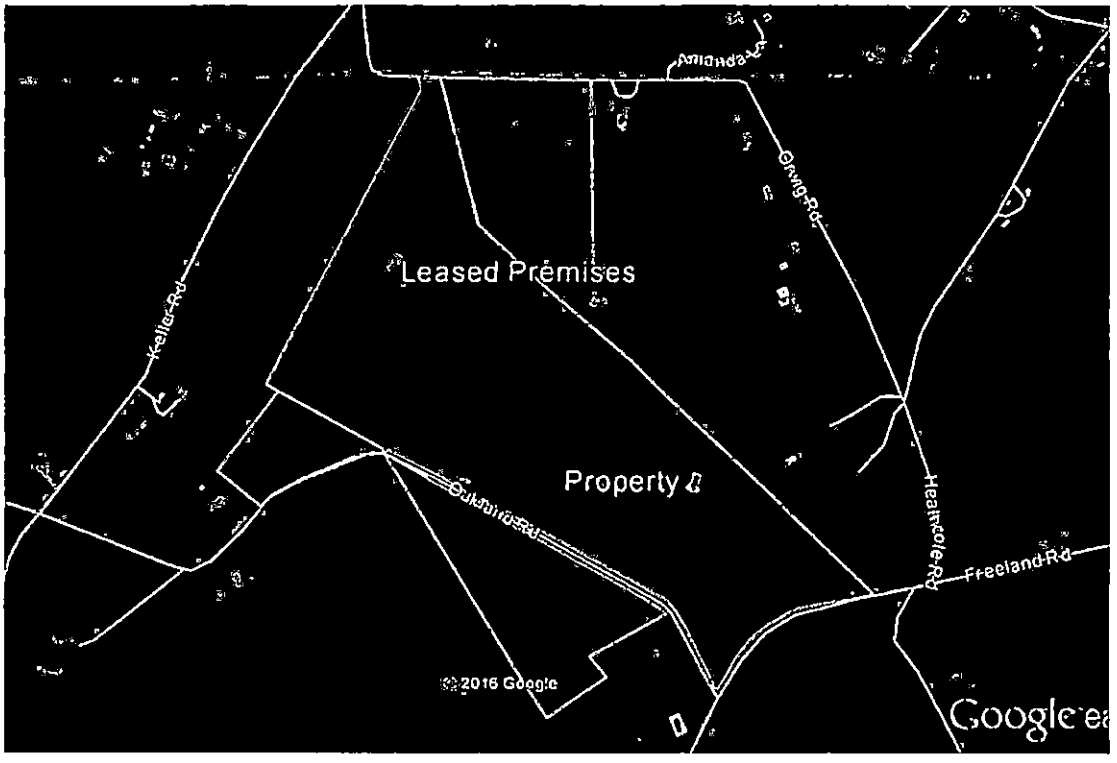


EXHIBIT B TO MEMORANDUM OF LEASE

LEASED PREMISES
(TO BE UPDATED PRIOR TO OPERATIONS TERM)

Leased Premises:

A portion of the Property consisting of up to forty-nine (49) acres generally identified by the red boundary in the map below:



BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0009, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

State of Maryland Land Instrument Intake Sheet

☐ Baltimore City ☑ County: Baltimore

Information provided is for the use of the Clerk's Office, State Department of Assessments and Taxation, and County Finance Office Only.

(Type or Print in Black Ink Only–All Copies Must Be Legible)

Space Reserved for Circuit Court Clerk Recording Validation

1 Type(s) of Instruments (☐ Check Box if addendum Intake Form is Attached.)

☐ Deed ☐ Deed of Trust	☐ Mortgage ☐ Lease	X Other Memo of Lease Option	☐ Other

2 Conveyance Type Check Box

☐ Improved Sale Arms-Length [1]	☐ Unimproved Sale Arms-Length [2]	☐ Multiple Accounts Arms-Length [3]	☐ Not an Arms-Length Sale [9]

3 Tax Exemptions (if applicable) Cite or Explain Authority

Recordation	
State Transfer	
County Transfer	

4 Consideration and Tax Calculations

Consideration Amount		Finance Office Use Only Transfer and Recordation Tax Consideration	
Purchase Price/Consideration	$	Transfer Tax Consideration	$
Any New Mortgage	$	X ( )% =	$
Balance of Existing Mortgage	$	Less Exemption Amount –	$
Other:	$	Total Transfer Tax =	$
Other:	$	Recordation Tax Consideration	$
Full Cash Value:	$	X ( ) per $500 =	$
		TOTAL DUE	$

5 Fees

Amount of Fees	Doc. 1	Doc. 2
Recording Charge	$ 20.00	$
Surcharge	$ 40.00	$
State Recordation Tax	$	$
State Transfer Tax	$	$
County Transfer Tax	$	$
Other	$	$
Other	$	$

Agent:

Tax Bill:

C.B. Credit:

Ag. Tax/Other:

6 Description of Property SDAT requires submission of all applicable information. A maximum of 40 characters will be indexed in accordance with the priority cited in Real Property Article Section 3-104(g)(3)(i).

District	Property Tax ID No. (1)	Grantor Liber/Folio	Map	Parcel No.	Var. LOG
07	0701089060	0026823/303	0003	0017	☐ (5)

Subdivision Name	Lot (3a)	Block (3b)	Sect/AR (3c)	Plat Ref.	SqFt/Acreage (4)
					49 acres

Location/Address of Property Being Conveyed (2): 632 Freeland Road, Freeland, MD 21053

Other Property Identifiers (if applicable): | Water Meter Account No.:

Residential ☐ or Non-Residential ☐ | Fee Simple ☐ or Ground Rent ☐ Amount:

Partial Conveyance? ☐ Yes ☐ No | Description/Amt. of SqFt/Acreage Transferred: Please see the Memorandum of Land Lease and Solar Easement for the Legal Description and Map of Lease Area

If Partial Conveyance, List Improvements Conveyed:

7 Transferred From

Doc. 1 – Grantor(s) Name(s)	Doc. 2 – Grantor(s) Name(s)
Charles Gary Atkinson	
Stephen Gordon ATkinson	
Doc. 1 – Owner(s) of Record, if Different from Grantor(s)	**Doc. 2 – Owner(s) of Record, if Different from Grantor(s)**

8 Transferred To

Doc. 1 – Grantee(s) Name(s)	Doc. 2 – Grantee(s) Name(s)
OneEnergy Development, LLC	

New Owner's (Grantee) Mailing Address: 2003 Western Ave., Suite 225, Seattle, Wa 98121

9 Other Names to Be Indexed

Doc. 1 – Additional Names to be Indexed (Optional)	Doc. 2 – Additional Names to be Indexed (Optional)

10 Contact/Mail Information

Instrument Submitted By or Contact Person

Name: Kate Larkin

Firm OneEnergy Renewables

Address: 2003 Western Ave., Suite 225

Seattle, WA 98161 Phone: (206) 900-9930

☑ Return to Contact Person ☐ Hold for Pickup ☐ Return Address Provided

11 IMPORTANT: *BOTH* THE ORIGINAL DEED *AND* A PHOTOCOPY MUST ACCOMPANY EACH TRANSFER

Assessment Information

☐ Yes ☑ No Will the property being conveyed be the grantee's principal residence?

☐ Yes ☑ No Does transfer include personal property? If yes, identify:

☐ Yes ☑ No Was property surveyed? If yes, attach copy of survey (if recorded, no copy required).

Space Reserved for County Validation

Assessment Use Only – Do Not Write Below This Line

Terminal Verification | Agricultural Verification | Whole | Part | Tran. Process Verification

Transfer Number | Date Received: | Deed Reference: | Assigned Property No.:

Year	20	20	Geo.	Map	Sub	Block
Land			Zoning	Grid	Plat	Lot
Buildings			Use	Parcel	Section	Occ. Cd.
Total			Town Cd.	Ex. St.	Ex. Cd.	

REMARKS:

TAX NOT REQUIRED
Director of Budget and Finance
BALTIMORE COUNTY, MARYLAND

☐ COUNTY TRANSFER TAX Per _____ ART 11 TITLE 3 SUBTITLE 2, 11-3-202

☐ RECORDATION TAX Per _____ T.P. ART 12-108

Date 8/31/16

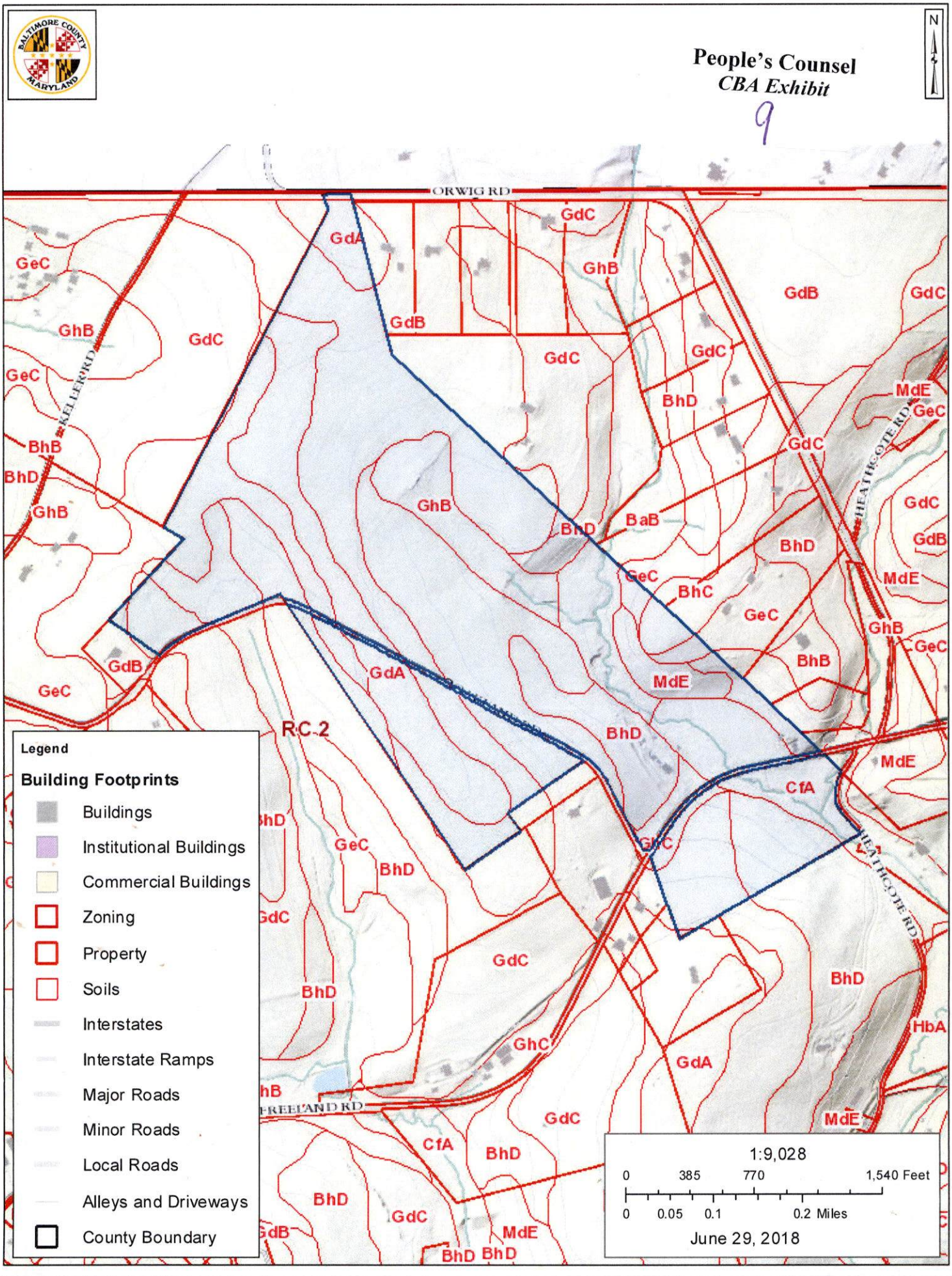
Distribution: White – Clerk's Office Pink – Office of Finance Canary – SDAT Goldenrod – Preparer

AGC-CC-108 R (2007)

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 37972, p. 0010, MSA_CE62_37829. Date available 09/14/2016. Printed 07/17/2018.

Baltimore County - My Neighborhood

People's Counsel
CBA Exhibit
9



Baltimore County, Maryland

BhD—Brinklow channery loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 2v7gf
Elevation: 250 to 1,000 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Not prime farmland

Map Unit Composition
Brinklow and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly residuum weathered from phyllite and/or gravelly residuum weathered from schist

Typical profile
Ap - 0 to 10 inches: channery loam
Bt - 10 to 19 inches: channery silt loam
BC - 19 to 25 inches: channery loam
Cr - 25 to 35 inches: bedrock
R - 35 to 45 inches: bedrock

Properties and qualities
Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 36 inches to paralithic bedrock; 28 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Blocktown
Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Data Source Information

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

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Baltimore County, Maryland

GdA—Glenelg loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2w062
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile

Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: very channery fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Glenville

Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Head slope, interfluve, base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Baltimore County, Maryland

GdB—Glenelg loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2v7gp
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Gaila
Percent of map unit: 10 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Glenville
Percent of map unit: 5 percent
Landform: Swales, drainageways
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Baltimore County, Maryland

GdC—Glenelg loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2v7gq
Elevation: 30 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Glenelg and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear, concave, convex
Parent material: Residuum weathered from mica schist

Typical profile
Ap1 - 0 to 6 inches: loam
Ap2 - 6 to 10 inches: clay loam
Bt1 - 10 to 18 inches: clay loam
Bt2 - 18 to 25 inches: clay loam
Bt3 - 25 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities
Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 11.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow
Percent of map unit: 10 percent
Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Data Source Information

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017

Baltimore County, Maryland

MdE—Manor-Brinklow complex, 25 to 45 percent slopes, very rocky

Map Unit Setting
National map unit symbol: 2lpfp
Elevation: 250 to 4,000 feet
Mean annual precipitation: 8 to 46 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 110 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition
Manor and similar soils: 55 percent
Brinklow and similar soils: 30 percent
Rock outcrop: 5 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manor

Setting
Landform: Ridges, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy residuum derived from phyllite and/or loamy residuum derived from schist

Typical profile
A1, A2 - 0 to 6 inches: loam
Bw1, Bw2 - 6 to 22 inches: sandy loam
C1,C2,C3,C4 - 22 to 72 inches: channery loamy sand

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B
Hydric soil rating: No

Description of Brinklow

Setting
Landform: Hillslopes, hillslopes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, free face
Parent material: Gravelly residuum weathered from schist and/or gravelly residuum weathered from phyllite

Typical profile
Ap - 0 to 10 inches: channery loam
Bt,BC - 10 to 25 inches: channery loam
Cr - 25 to 35 inches: weathered bedrock
R - 35 to 80 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 20 to 33 inches to paralithic bedrock; 33 to 80 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rock Outcrop

Typical profile
H1 - 0 to 60 inches: bedrock

Properties and qualities
Slope: 25 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

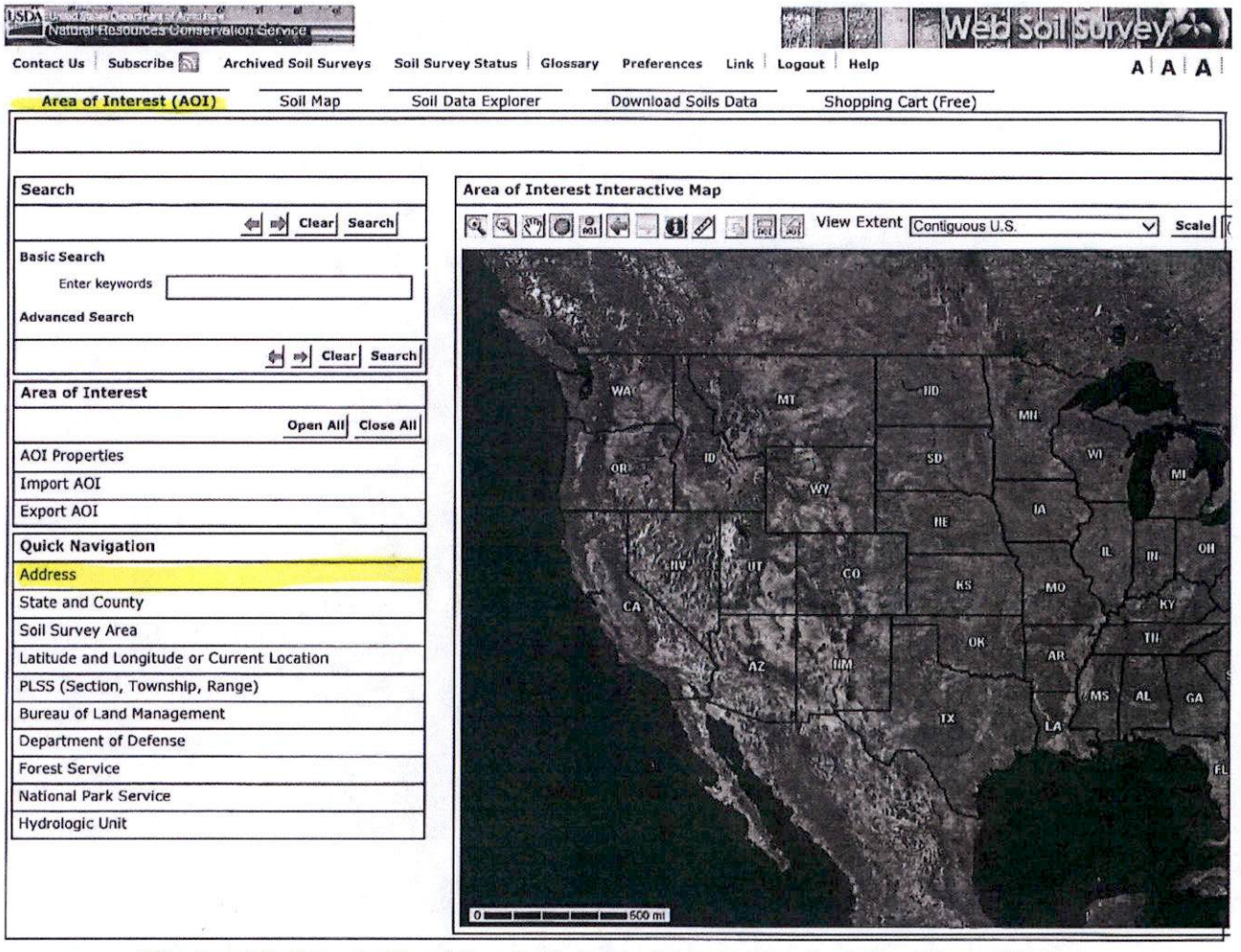
Blocktown

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Data Source Information

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil Survey Area: York County, Pennsylvania
Survey Area Data: Version 11, Oct 4, 2017



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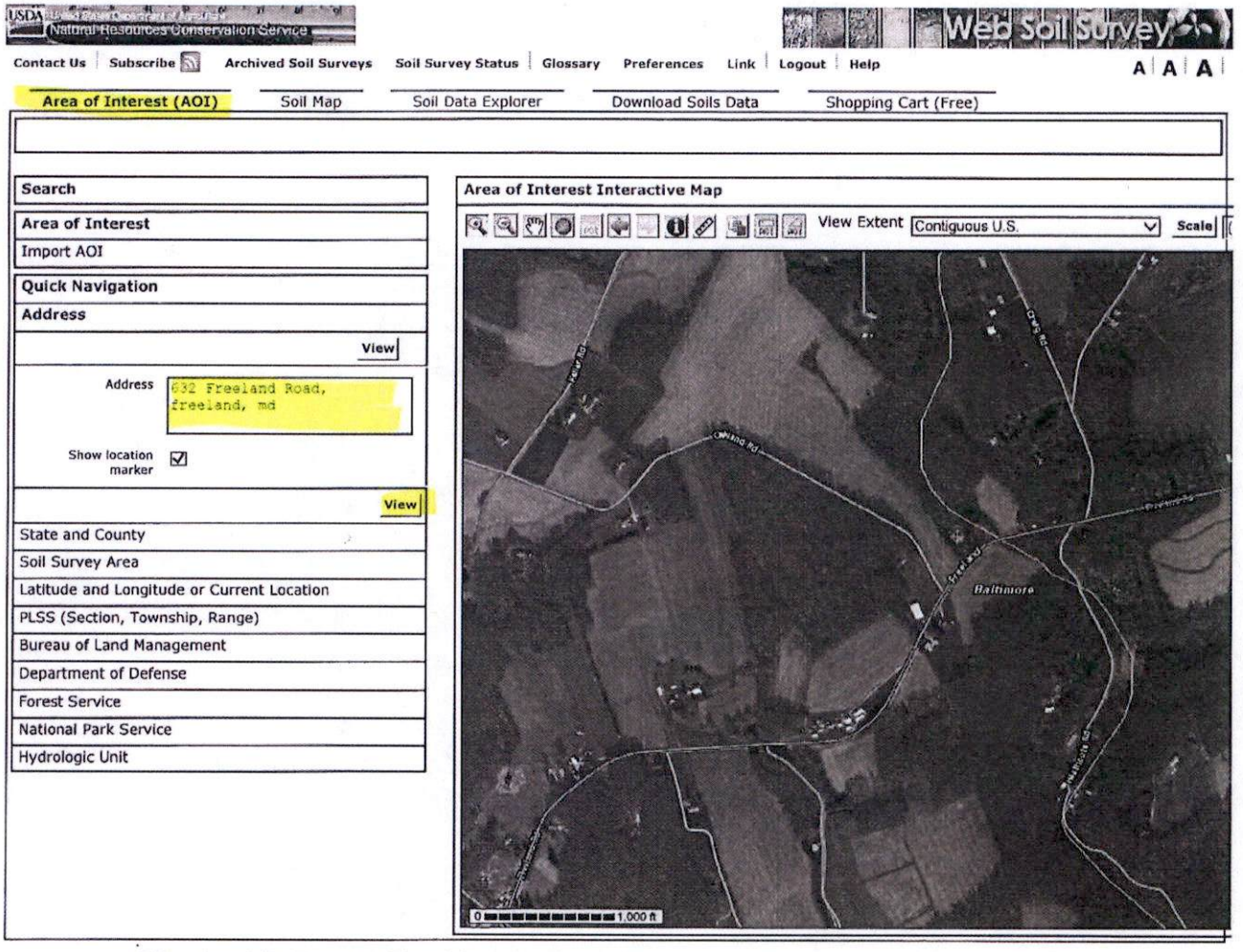

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USDA United States Department of Agriculture
Natural Resources Conservation Service

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A A A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

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Basic Search

Enter keywords

Advanced Search

Clear Search

Area of Interest

Open All Close All

AOI Properties

Clear AOI

AOI Information

Name

Map Unit Symbols
- (•) Use Soil Survey Area Map Unit Symbols
- ( ) Use National Map Unit Symbols

Area (acres)

Baltimore County, Maryland	317.2
York County, Pennsylvania	3.29
Total	320.5

Soil Data Available from Web Soil Survey

Baltimore County, Maryland (MD005)

Data Availability	Tabular and Spatial, complete
Tabular Data	Version 12, Sep 18, 2017
Spatial Data	Version 8, Sep 19, 2016

York County, Pennsylvania (PA133)

Data Availability	Tabular and Spatial, complete
Tabular Data	Version 9, Oct 4, 2017
Spatial Data	Version 3, Dec 13, 2013

Clear AOI

Import AOI

Export AOI

Quick Navigation

Address

View

Address: 632 Freeland road, freeland, md

Show location marker: ☑

View

State and County

Soil Survey Area

Latitude and Longitude or Current Location

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

Forest Service

National Park Service

Hydrologic Unit

Area of Interest Interactive Map

View Extent: Contiguous U.S. Scale



Soil Data Available

To see a description of the soil data available for a specific point on the map:

1. Click anywhere in the map. The soil data availability for that point will be shown here.
2. The point you clicked is marked with the identified point icon:
3. To see a map showing soil data availability for all locations in the U.S. and territories, click the **Soil Survey Status** link in the Navigation Bar above.

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Map Unit Legend

Baltimore County, Maryland (MD005)
York County, Pennsylvania (PA133)

Baltimore County, Maryland (MD005)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	10.8	3.4%
BhB	Brinklow channery loam, 3 to 8 percent slopes	1.9	0.6%
BhC	Brinklow channery loam, 8 to 15 percent slopes	5.8	1.8%
BhD	Brinklow channery loam, 15 to 25 percent slopes	48.8	15.2%
CfA	Codorus silt loams, 0 to 3 percent slopes	11.6	3.6%
GdA	Glenelg loam, 0 to 3 percent	21.0	6.5%

Soil Map

Scale (not to scale)



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ARTICLE 1A

RESOURCE CONSERVATION ZONES

SECTION 1A00
General Provisions for All R.C. Classifications

§ 1A00.1. Findings.
§ 1A00.2. Purposes.
§ 1A00.3. Rezoning.
§ 1A00.4. Plans and plats.
§ 1A00.5. Application to tract divided by zone boundary.

SECTION 1A01
R.C.2 (Agricultural) Zone

§ 1A01.1. General provisions.
§ 1A01.2. Use regulations.
§ 1A01.3. Height and area regulations.
§ 1A01.4. Maryland Agricultural Land Preservation Program.
§ 1A01.5. Inconveniences arising from agricultural operations.

SECTION 1A02
R.C.3 (Deferral of Planning and Development) Zone

§ 1A02.1. Legislative policy.
§ 1A02.2. Use regulations.
§ 1A02.3. Height and area regulations.
§ 1A02.4. Maryland agricultural land preservation program.
§ 1A02.5. Residential development standards.

SECTION 1A03
R.C.4 (Watershed Protection) Zone

§ 1A03.1. Findings and legislative policy.
§ 1A03.2. Rezoning by petition.
§ 1A03.3. Use regulations.
§ 1A03.4. Height and area regulations.
§ 1A03.5. Performance standards for rural cluster development.
§ 1A03.6. Optional development in R.C.4 Zones.
§ 1A03.7. Additional standards.
§ 1A03.8. Inconveniences arising from agricultural operations.

SECTION 1A04
R.C.5 (Rural-Residential) Zone

§ 1A04.1. General provisions.
§ 1A04.2. Use regulations.
§ 1A04.3. Height and area regulations.
§ 1A04.4. Performance standards.

SECTION 1A05
R.C.20 (Critical Area) and R.C.50 (Critical Area, Agricultural) Zones

§ 1A05.1. General provisions.
§ 1A05.2. Table of Land Use Regulations.
§ 1A05.3. General and special land use regulations.
§ 1A05.4. Height and area regulations.
§ 1A05.5. Bona fide intrafamily transfers.

B. That this development has occurred without the framework of a land use plan or other planning components;

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C. That due to this and other factors, this development has formed very undesirable land use patterns;

D. That in general, these patterns are, or can be described as, urban sprawl;

E. That a significant amount of urban sprawl development is occurring as linear development along the various highways of the rural areas of the county as tracts of land immediately fronting along highways are "lotted off"; the utility of the road system is being impaired and future improvements will be frustrated if this process continues;

F. That it has been established that this development carries with it an extremely high cost to the county in a number of respects including:

1. The cost of servicing this pattern of development;

2. The cost with respect to its consumption and use of prime agricultural land, critical watershed areas, mineral extractive sites, as well as of other important natural resource areas;

3. The cost of future development opportunities due to the fact that viable, rational alternatives will be lost totally or compromised significantly by the present form of development;

G. That the aspect of the comprehensive plan that is applicable and which is being considered for rural Baltimore County embodies solutions to the various problems;

H. That the effective implementation of this plan requires additional zoning classifications; and

I. That effective implementation of the resource conservation area requirements in the Chesapeake Bay Critical Area criteria requires additional resource conservation zoning classifications to accommodate strictly controlled growth while conserving habitat and water quality within the Critical Area. **[Bill No. 32-1988]**

§ 1A00.2. Purposes.

Pursuant to the above findings, it is the purpose of the Resource Conservation Zones to:

A. Discourage present land use patterns of development and to create a framework for planned or orderly development;

B. Provide sufficient and adequate areas for rural-suburban and related development in selected and suitable areas;

C. Protect both natural and man-made resources from compromising effects of specific forms and densities of development;

D. Protect areas desirable for more intensive future development by regulating undesirable forms of development within these areas until such time as intensive development commences.

§ 1A00.5. Application to tract divided by zone boundary.

Whenever a single tract is divided by a zone boundary so that portions of such a tract lie within R.C. Zones of different classifications, the total number of dwellings or density units permitted shall apply to each tract individually and, for the purpose of these regulations, shall be considered as separate parcels.

SECTION 1A01
R.C.2 (Agricultural) Zone

§ 1A01.1. General provisions.

A. Legislative statement of findings.

1. Declaration of findings. It is found:

a. That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;

b. That the agricultural industry is an integral part of the Baltimore economy and that a continued conversion of agricultural land will continue to undermine this basic industry;

c. That scattered development is occurring in a sporadic fashion in areas of Baltimore County containing productive agricultural land;

d. That continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area;

e. That heretofore Baltimore County has been unable to effectively stem the tide of new residential subdivisions in productive agricultural areas of Baltimore County;

f. That Baltimore County has certain wetlands along Chesapeake Bay and its tributaries which serve as breeding grounds and nursery areas for the bay's biotic life; and

g. That Baltimore County possesses numerous areas which are highly suitable for urban development, including residential subdivisions which are not located in areas of productive agricultural land.

B. Purposes. The R.C.2 zoning classification is established pursuant to the legislative findings above in order to foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses.

involve the employment of more than one nonresident employee. **[Bill Nos. 78-1979; 105-1982; 65-1999]**

e. Parking space, including residential-garage space and space for recreational vehicle (Section 415A). **[Bill No. 178-1979]**

f. Piers, wharves, docks and bulkheads, subject to the provisions of Section 417. **[Bill No. 178-1979]**

g. Radio operator antennas, subject to Section 426A. **[Bill Nos. 178-1979; 30-1998]**

h. Swimming pools, tennis courts, garages, utility sheds, satellite receiving dishes (subject to Section 429) or other accessory structures or uses (subject to the height and area provisions for buildings as set forth in Section 400). **[Bill No. 178-1979; Bill No. 71-1987]**

i. Tenant houses, including mobile homes used as tenant houses. **[Bill Nos. 178-1979; 27-2015]**

j. Rubble landfills, provided that the actual fill area does not exceed 3% of the total contiguous acreage of the property in the same ownership and subject to the provisions of Section 412.7 only. **[Bill No. 97-1987]**

k. Signs, subject to Section 450. **[Bill No. 89-1997]**

10. Commercial film production, subject to Section 435. **[Bill No. 57-1990]**

11. Transit facilities. **[Bill No. 91-1990]**

12. Equestrian centers, provided that any such equestrian center has access to two roads, one of which is a road having, within two miles from the equestrian center, an interchange with an interstate expressway; contains no permanent grandstand; and contains no lights other than those consistent with farm use. Temporary structures, such as removable tents, viewing stands and seating, are permitted, provided that they are removed within a reasonable time following the event or events which they serve. **[Bill No. 24-2002]**

13. Farmstead creamery, subject to the provisions of Section 404.13. **[Bill No. 34-2009]**

14. Domestic animal sanctuary, if located on or within property that is greater than 7.5 acres in size. **[Bill No. 20-2010]**

C. Uses permitted by special exception.[4] The following uses, only, may be permitted by special exception in any R.C.2 Zone, provided that in each case the hearing authority empowered to hear the petition finds that the use would not be detrimental to the primary

4. Editor's Note: The following uses were included in this section by Bill No. 98-1975, and deleted by Bill No. 178-1979: "baseball batting ranges," "cemeteries," "community bldgs. swimming pools," "fish hatcheries," "golf driving ranges, miniature-golf," "helistops," "hospitals," "nursing, convalescent homes," "railroads," "sanitariums" and "shooting preserves."

a. Only three persons, including the disabled person and the members of his immediate family who are residents of the dwelling, are employed in the use on the premises; and

b. In any case the use is conducted by a disabled person whose domicile is the dwelling to which the use is accessory and whom the hearing authority finds is so severely disabled as to be unable to engage in his occupation away from the premises of his home.

Any provision of Section 502.2 to the contrary notwithstanding, any special exception granted pursuant to this item shall expire upon the first to occur of the following:

(1) Five years after the issuance of the permit;

(2) The death of a disabled person;

(3) The termination of the disability; or

(4) The failure of the disabled person to permanently reside at the premises.

A new special exception for the use may be granted when the previous special exception expires but only upon the completion of the entire application and hearing process in the same manner as if it were the initial application for this special exception. It is the purpose of this provision to prevent the use of residential property for business purposes by an occupant other than a disabled person and to ensure that any occupation permitted pursuant to this item will be conducted in a manner appropriate to its surroundings. **[Bill No. 27-1981]**

13. Horticultural nurseries, subject to the provisions of Sections 404.1 and 404.2. **[Bill No. 41-1992]**

14. Hunting or fishing preserves. **[Bill No. 178-1979]**

15. Landscape service operations, subject to the provisions of Sections 404.1 and 404.3. **[Bill No. 41-1992]**

16. Offices for agriculture-related uses. **[Bill Nos. 178-1979; 37-1988]**

17. Offices or studios of physicians, dentists, lawyers, architects, engineers, artists, musicians or other professional persons as an accessory use, provided that any such office or studio is established within the same building as that serving as the professional person's primary residence at the time of application; does not occupy more than 25% of the total floor area of that residence; and does not involve the employment of more than one nonresident professional associate nor two other nonresident employees. **[Bill Nos. 105-1982; 65-1999]**

g. Firewood operations. [Bill No. 151-1992]

h. Winery, including accessory retail and wholesale distribution of wine produced on-premises. Temporary promotional events, such as wine tastings or public gatherings associated with the winery, are permitted, within any limits set by the special exception. [Bill No. 51-1993]

i. Bottled water plant, if the source of the water is located on the same site as the plant, and provided that the Director of Environmental Protection and Sustainability makes a recommendation that the proposed facility will not adversely affect the quality or capacity of surface water or groundwater. [Bill Nos. 51-1993; 122-2010]

j. Brewery, Class 7 or Class 8, including accessory retail and wholesale distribution of beer produced on the premises. Temporary promotional events, such as beer tasting or public gatherings associated with the brewery, are permitted subject to approval by the Administrative Law Judge or Board of Appeals on appeal. [Bill No. 64-2015]

§ 1A01.3. Height and area regulations.

A. Height regulation. No structure hereafter erected in an R.C.2 Zone shall exceed a height of 35 feet, except as otherwise provided under Section 300.

B. Area regulations. [Bill No. 178-1979]

1. Subdivision lot density. No lot of record lying within an R.C.2 Zone and having a gross area of less than two acres may be subdivided. No such lot having a gross area between two and 100 acres may be subdivided into more than two lots (total), and such a lot having a gross area of more than 100 acres may be subdivided only at the rate of one lot for each 50 acres of gross area. In cases where land in single ownership is crossed by existing or proposed roads, rights-of-way or easements, the portions of land on either side of the road, right-of-way or easement shall not be considered separate parcels for the purpose of calculating the number of lots of record. [Bill Nos. 199-1990; 125-2005]

2. Lot size. A lot having an area less than one acre may not be created in an R.C.2 Zone.

3. Setback requirements. No principal structure or dwelling (whether or not it is a principal structure) in an R.C.2 Zone may be situated within 75 feet of the center line of any street or within 35 feet of any lot line other than a street line.

4. Principal dwellings per lot. No more than one principal dwelling is permitted on any lot in an R.C.2 Zone.

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ARTICLE 1A

RESOURCE CONSERVATION ZONE

SECTION 1A00
General Provisions for All R.C. Classifications

§ 1A00.1. Findings.
§ 1A00.2. Purposes.
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§ 1A08.1. Findings and legislative goals.
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SECTION 1A09
R.C.8 (Environmental Enhancement) Zone

§ 1A09.1. Findings and legislative goals.
§ 1A09.2. Definitions.
§ 1A09.3. Permitted uses.
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§ 1A09.8. Inconveniences arising from agricultural operations.

[Bill No. 98-1975[1]]

SECTION 1A00
General Provisions for All R.C. Classifications

§ 1A00.1. Findings.

It is found:

A. That development in the rural areas of Baltimore County has in recent years been taking place at an increasing rate;

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1. Editor's Note: Bill No. 98-1975, which enacted this Article, also repealed former Article 1A, Sections 1A00 and 1A01, previously added by Bill No. 100-1970.

B. That this development has occurred without the framework of a land use plan or other planning components;

C. That due to this and other factors, this development has formed very undesirable land use patterns;

D. That in general, these patterns are, or can be described as, urban sprawl;

E. That a significant amount of urban sprawl development is occurring as linear development along the various highways of the rural areas of the county as tracts of land immediately fronting along highways are "lotted off"; the utility of the road system is being impaired and future improvements will be frustrated if this process continues;

F. That it has been established that this development carries with it an extremely high cost to the county in a number of respects including:

1. The cost of servicing this pattern of development;

2. The cost with respect to its consumption and use of prime agricultural land, critical watershed areas, mineral extractive sites, as well as of other important natural resource areas;

3. The cost of future development opportunities due to the fact that viable, rational alternatives will be lost totally or compromised significantly by the present form of development;

G. That the aspect of the comprehensive plan that is applicable and which is being considered for rural Baltimore County embodies solutions to the various problems;

H. That the effective implementation of this plan requires additional zoning classifications; and

I. That effective implementation of the resource conservation area requirements in the Chesapeake Bay Critical Area criteria requires additional resource conservation zoning classifications to accommodate strictly controlled growth while conserving habitat and water quality within the Critical Area. **[Bill No. 32-1988]**

§ 1A00.2. Purposes.

Pursuant to the above findings, it is the purpose of the Resource Conservation Zones to:

A. Discourage present land use patterns of development and to create a framework for planned or orderly development;

B. Provide sufficient and adequate areas for rural-suburban and related development in selected and suitable areas;

C. Protect both natural and man-made resources from compromising effects of specific forms and densities of development;

D. Protect areas desirable for more intensive future development by regulating undesirable forms of development within these areas until such time as intensive development commences.

E. Help achieve the goals of the Chesapeake Bay Critical Area Protection Law[2] by enacting land use policies to control development within the Critical Area by conserving the land and water resource base for agriculture, forestry and other natural resource uses; minimizing adverse effects on water quality; and conserving fish, wildlife and plant habitat. **[Bill No. 32-1988]**

§ 1A00.3. Rezoning. [Bill No. 32-1988]

A. Filing of rezoning petitions.

1. No petition to reclassify an R.C. Zone or portion thereof as other than an R.C. Zone may be accepted for filing by the Zoning Commissioner unless:

a. The capital program, duly adopted Baltimore County Master or Comprehensive Plans, and the "county plan" required under Subtitle 5 of Title 9 in the Environment Article of the Annotated Code of Maryland 1987, as amended, show that the property under petition is to be serviced by public sewerage and water supply systems within two years after the date the petition is submitted; and

b. Required recommendations.

(1) No zoning reclassification may be granted for property zoned R.C.20 or R.C.50 by the Board of Appeals of Baltimore County unless the Board has received, in addition to any other recommendations from county agencies required by law or regulations, a recommendation on such requested reclassification from the Director of the Department of Environmental Protection and Sustainability. **[Bill No. 122-2010]**

(2) The recommendations shall be provided to the Board of Appeals within 30 days after the Department is notified by certified mail, return receipt requested, by the petitioner of the filing of the petition for reclassification, unless the Department by written request to the Board of Appeals, with good cause shown, moves that additional time not to exceed an additional 30 days is required to prepare and file said recommendations with the Board of Appeals.

B. The meeting of criteria established in this article for the filing of zoning reclassification petitions shall not in itself be sufficient grounds to reclassify property.

§ 1A00.4. Plans and plats.

Development plans and final subdivision plats shall be required in the manner prescribed under Section 1B01.3, and, for the purpose of this section, all references to D.R. Zones shall include the R.C. Zones.

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2. **Editor's Note: See Title 8, Subtitle 18, of the Natural Resources Article of the Annotated Code of Maryland.**

§ 1A00.5. Application to tract divided by zone boundary.

Whenever a single tract is divided by a zone boundary so that portions of such a tract lie within R.C. Zones of different classifications, the total number of dwellings or density units permitted shall apply to each tract individually and, for the purpose of these regulations, shall be considered as separate parcels.

SECTION 1A01
R.C.2 (Agricultural) Zone

§ 1A01.1. General provisions.

A. Legislative statement of findings.

1. Declaration of findings. It is found:

a. That Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;

b. That the agricultural industry is an integral part of the Baltimore economy and that a continued conversion of agricultural land will continue to undermine this basic industry;

c. That scattered development is occurring in a sporadic fashion in areas of Baltimore County containing productive agricultural land;

d. That continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area;

e. That heretofore Baltimore County has been unable to effectively stem the tide of new residential subdivisions in productive agricultural areas of Baltimore County;

f. That Baltimore County has certain wetlands along Chesapeake Bay and its tributaries which serve as breeding grounds and nursery areas for the bay's biotic life; and

g. That Baltimore County possesses numerous areas which are highly suitable for urban development, including residential subdivisions which are not located in areas of productive agricultural land.

B. Purposes. The R.C.2 zoning classification is established pursuant to the legislative findings above in order to foster conditions favorable to a continued agricultural use of the productive agricultural areas of Baltimore County by preventing incompatible forms and degrees of urban uses.

§ 1A01.2. Use regulations.

A. Preferred use permitted as of right. Agricultural operations, when conducted in accordance with good and reasonable husbandry practices, shall be afforded preferential treatment over and above all other permitted uses in R.C.2 Zones.

B. Uses permitted as of right.[3] The following uses only are permitted as of right in all R.C.2 Zones: **[Bill No. 178-1979]**

1. Dwellings, one-family detached. **[Bill No. 178-1979]**

2. Farms and limited acreage wholesale flower farms (Section 404). **[Bill Nos. 178-1979; 51-1993]**

3. Open space, common. **[Bill No. 178-1979]**

4. Public schools. **[Bill Nos. 63-1980; 47-1982; 47-1985]**

5. Streets and ways. **[Bill No. 178-1979]**

6. Telephone, telegraph, electrical-power or other lines or cables, provided that any such line or cable is underground; underground gas, water or sewer mains or storm drains; or other underground conduits, except interstate or international pipelines. **[Bill No. 178-1979]**

7. Trailers or mobile homes, provided that any trailer or mobile home allowed under this provision must be used or stored in accordance with the provisions of Subsection B, C, E or F of Section 415.1 and Section 415.2.A.1 or 415.3.C.1, as applicable. **[Bill Nos. 178-1979; 27-2015]**

8. Antennas used by CATV systems operated by companies franchised under Article 25 of the Baltimore County Code, if situated on property owned by the county, state or federal government or by a governmental agency. **[Bill Nos. 220-1981; 137-2004]**

9. Accessory uses or structures, including, but not limited to, the following:

   a. Excavations, uncontrolled. **[Bill No. 178-1979]**

   b. Farmer's roadside stand and produce stand, subject to the provisions of Section 404.4. **[Bill Nos. 178-1979; 41-1992]**

   c. Home occupations (see Section 101). **[Bill Nos. 124-1978; 178-1979]**

   d. Offices or studios of physicians, dentists, lawyers, architects, engineers, artists, musicians or other professional persons, provided that any such office or studio is established within the same building as that serving as the professional person's primary residence at the time of application; does not occupy more than 25% of the total floor area of that residence; and does not

3. **Editor's Note: "Churches and schools for agriculture training," originally included in this section by Bill No. 98-1975, were moved to Section 1A01.2.C by Bill No. 178-1979.**

involve the employment of more than one nonresident employee. **[Bill Nos. 78-1979; 105-1982; 65-1999]**

e. Parking space, including residential-garage space and space for recreational vehicle (Section 415A). **[Bill No. 178-1979]**

f. Piers, wharves, docks and bulkheads, subject to the provisions of Section 417. **[Bill No. 178-1979]**

g. Radio operator antennas, subject to Section 426A. **[Bill Nos. 178-1979; 30-1998]**

h. Swimming pools, tennis courts, garages, utility sheds, satellite receiving dishes (subject to Section 429) or other accessory structures or uses (subject to the height and area provisions for buildings as set forth in Section 400). **[Bill No. 178-1979; Bill No. 71-1987]**

i. Tenant houses, including mobile homes used as tenant houses. **[Bill Nos. 178-1979; 27-2015]**

j. Rubble landfills, provided that the actual fill area does not exceed 3% of the total contiguous acreage of the property in the same ownership and subject to the provisions of Section 412.7 only. **[Bill No. 97-1987]**

k. Signs, subject to Section 450. **[Bill No. 89-1997]**

10. Commercial film production, subject to Section 435. **[Bill No. 57-1990]**

11. Transit facilities. **[Bill No. 91-1990]**

12. Equestrian centers, provided that any such equestrian center has access to two roads, one of which is a road having, within two miles from the equestrian center, an interchange with an interstate expressway; contains no permanent grandstand; and contains no lights other than those consistent with farm use. Temporary structures, such as removable tents, viewing stands and seating, are permitted, provided that they are removed within a reasonable time following the event or events which they serve. **[Bill No. 24-2002]**

13. Farmstead creamery, subject to the provisions of Section 404.13. **[Bill No. 34-2009]**

14. Domestic animal sanctuary, if located on or within property that is greater than 7.5 acres in size. **[Bill No. 20-2010]**

C. Uses permitted by special exception.[4] The following uses, only, may be permitted by special exception in any R.C.2 Zone, provided that in each case the hearing authority empowered to hear the petition finds that the use would not be detrimental to the primary

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4. **Editor's Note: The following uses were included in this section by Bill No. 98-1975, and deleted by Bill No. 178-1979: "baseball batting ranges," "cemeteries," "community bldgs. swimming pools," "fish hatcheries," "golf driving ranges, miniature-golf," "helistops," "hospitals," "nursing, convalescent homes," "railroads," "sanitariums" and "shooting preserves."**

agricultural uses in its vicinity; and, in the case of any use permitted under Item 29, further provided that the hearing authority finds that the use would support the primary agricultural use in its vicinity and would not itself be situated on land more appropriately used for primary agricultural uses: **[Bill No. 178-1979]**

1. Airports. **[Bill No. 178-1979]**

2. Animal boarding places (regardless of class), commercial kennels, private kennels, veterinarians' offices or veterinariums (see Section 421). **[Bill Nos. 178-1979; 87-2001]**

3. Antique shops (see Section 402B). **[Bill No. 178-1979]**

4. Camps, including day camps. **[Bill No. 178-1979]**

5. Community care centers provided that no residential community care center, i.e., a center which serves as the residence of the persons for whom care is provided, shall provide care for more than 15 persons per site, and no day community care center shall provide care for more than 15 persons per acre nor more than 75 persons per site; however, if the site is in excess of two net acres and is located outside the urban rural demarcation line, the hearing authority shall determine the maximum number of persons permitted in a day community care center based on the total acreage of the site and the testimony and evidence presented. **[Bill Nos. 178-1979; 157-1986; 19-2014]**

6. Churches or other buildings for religious worship. **[Bill No. 178-1979]**

7. Community building owned by a nonprofit civic or improvement association and used by its members and guests for recreational, social, educational, or cultural activities. **[Bill No. 26-2015[5]]**

8. Excavations, controlled. **[Bill No. 178-1979]**

9. Farm market, subject to the provisions of Section 404.4. **[Bill Nos. 178-1979; 41-1992]**

10. Fishing and shellfishing facilities, Class I and II. **[Bill No. 178-1979]**

11. Golf courses or country clubs. **[Bill No. 178-1979]**

12. Home occupations of disabled persons, where the use is established in a structure originally constructed as a dwelling or as accessory to a dwelling or where the use is established in a structure that is situated on the same lot as a dwelling and which the Zoning Commissioner finds to be compatible with its surrounding neighborhood, provided that:

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5. **Editor's Note: This bill also provided for the renumbering of former Subsections 7 through 29 as Subsections 8 through 30, respectively.**
Section 2 of this bill stated that it would apply to existing structures located within the geographic boundary of a nonprofit civic or improvement association, or as a replacement in the same footprint of said structures, as of the effective date of this Act (45 days after its 3-16-2015 enactment).

a. Only three persons, including the disabled person and the members of his immediate family who are residents of the dwelling, are employed in the use on the premises; and

b. In any case the use is conducted by a disabled person whose domicile is the dwelling to which the use is accessory and whom the hearing authority finds is so severely disabled as to be unable to engage in his occupation away from the premises of his home.

Any provision of Section 502.2 to the contrary notwithstanding, any special exception granted pursuant to this item shall expire upon the first to occur of the following:

(1) Five years after the issuance of the permit;

(2) The death of a disabled person;

(3) The termination of the disability; or

(4) The failure of the disabled person to permanently reside at the premises.

A new special exception for the use may be granted when the previous special exception expires but only upon the completion of the entire application and hearing process in the same manner as if it were the initial application for this special exception. It is the purpose of this provision to prevent the use of residential property for business purposes by an occupant other than a disabled person and to ensure that any occupation permitted pursuant to this item will be conducted in a manner appropriate to its surroundings. **[Bill No. 27-1981]**

13. Horticultural nurseries, subject to the provisions of Sections 404.1 and 404.2. **[Bill No. 41-1992]**

14. Hunting or fishing preserves. **[Bill No. 178-1979]**

15. Landscape service operations, subject to the provisions of Sections 404.1 and 404.3. **[Bill No. 41-1992]**

16. Offices for agriculture-related uses. **[Bill Nos. 178-1979; 37-1988]**

17. Offices or studios of physicians, dentists, lawyers, architects, engineers, artists, musicians or other professional persons as an accessory use, provided that any such office or studio is established within the same building as that serving as the professional person's primary residence at the time of application; does not occupy more than 25% of the total floor area of that residence; and does not involve the employment of more than one nonresident professional associate nor two other nonresident employees. **[Bill Nos. 105-1982; 65-1999]**

18. Public utility uses not permitted as of right. **[Bill No. 178-1979]**

19. Rail passenger station, subject to Section 434. **[Bill No. 91-1990[6]]**

20. Residential art salons (see Section 402C). **[Bill No. 178-1979]**

21. Standard restaurants or tearooms converted from dwellings (Section 402.2). **[Bill Nos. 178-1979; 110-1993]**

22. Riding stables. **[Bill No. 178-1979]**

23. Sanitary landfills, or rubble landfills in which the actual fill area exceeds 3% of the total contiguous acreage of the property in the same ownership. However, the fill area of a rubble landfill may not exceed 7% of the total contiguous acreage, nor may the fill area exceed a depth of 20 feet unless the Zoning Commissioner specifically finds that the landfill should be exempt from the depth limitation (see Section 412). **[Bill Nos. 178-1979; 97-1987]**

24. Schools, including schools for agricultural training, private preparatory schools, business or trade schools, conservatories or colleges. **[Bill No. 178-1979]**

25. Shooting ranges, including archery, pistol, skeet, trap or small-bore rifle ranges, or turkey shoots. **[Bill No. 178-1979]**

26. Sludge disposal facility — landspreading (Section 412A.2.E). **[Bill No. 46-1982]**

27. Mobile homes, as provided in Section 415.1.D. **[Bill Nos. 178-1979; 27-2015]**

28. Volunteer fire company or ambulance-rescue facilities. **[Bill No. 178-1979]**

29. Wireless telecommunications towers, subject to Section 426. **[Bill No. 30-1998]**

30. The following "agricultural-support" uses as principal commercial uses: **[Bill Nos. 178-1979; 51-1993]**

    a. Farm-machinery sales, storage or service; blacksmithing. **[Bill No. 178-1979]**

    b. Feed or grain mills or driers. **[Bill No. 178-1979]**

    c. Fertilizer sales or storage. **[Bill No. 178-1979]**

    d. Sawmills. **[Bill No. 178-1979]**

    e. Slaughterhouses or manufacture, processing or packing of fruit, vegetables, animal or meat products, or by-products. **[Bill No. 178-1979]**

    f. Spirits manufacture, including the manufacture of alcohol to be used in gasoline/alcohol mixtures, but excluding the production of these mixtures. **[Bill Nos. 178-1979; 51-1993]**

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6. **Editor's Note: Former Item 14, "Research institutes (see Section 418)," which followed this item, was repealed by Bill No. 122-1984.**

g. Firewood operations. **[Bill No. 151-1992]**

h. Winery, including accessory retail and wholesale distribution of wine produced on-premises. Temporary promotional events, such as wine tastings or public gatherings associated with the winery, are permitted, within any limits set by the special exception. **[Bill No. 51-1993]**

i. Bottled water plant, if the source of the water is located on the same site as the plant, and provided that the Director of Environmental Protection and Sustainability makes a recommendation that the proposed facility will not adversely affect the quality or capacity of surface water or groundwater. **[Bill Nos. 51-1993; 122-2010]**

j. Brewery, Class 7 or Class 8, including accessory retail and wholesale distribution of beer produced on the premises. Temporary promotional events, such as beer tasting or public gatherings associated with the brewery, are permitted subject to approval by the Administrative Law Judge or Board of Appeals on appeal. **[Bill No. 64-2015]**

§ 1A01.3. Height and area regulations.

A. Height regulation. No structure hereafter erected in an R.C.2 Zone shall exceed a height of 35 feet, except as otherwise provided under Section 300.

B. Area regulations. **[Bill No. 178-1979]**

1. Subdivision lot density. No lot of record lying within an R.C.2 Zone and having a gross area of less than two acres may be subdivided. No such lot having a gross area between two and 100 acres may be subdivided into more than two lots (total), and such a lot having a gross area of more than 100 acres may be subdivided only at the rate of one lot for each 50 acres of gross area. In cases where land in single ownership is crossed by existing or proposed roads, rights-of-way or easements, the portions of land on either side of the road, right-of-way or easement shall not be considered separate parcels for the purpose of calculating the number of lots of record. **[Bill Nos. 199-1990; 125-2005]**

2. Lot size. A lot having an area less than one acre may not be created in an R.C.2 Zone.

3. Setback requirements. No principal structure or dwelling (whether or not it is a principal structure) in an R.C.2 Zone may be situated within 75 feet of the center line of any street or within 35 feet of any lot line other than a street line.

4. Principal dwellings per lot. No more than one principal dwelling is permitted on any lot in an R.C.2 Zone.

§ 1A01.4. Maryland Agricultural Land Preservation Program. [Bill Nos. 178-1979; 137-2004]

The use or development of land in an agricultural district established in accordance with Title 2, Subtitle 5 of the Agriculture Article of the Annotated Code of Maryland shall be governed by agricultural land preservation provisions enacted by the County Council pursuant to § 2-513 of the Agriculture Article in the case of any conflict between those provisions and these regulations.

§ 1A01.5. Inconveniences arising from agricultural operations. [Bill No. 34-2009]

Any dwelling, business or use in or near an R.C. 2 Zone may be subject to inconveniences or discomforts arising from agricultural operations, including but not limited to noise, odors, fumes, dust, the operations of machinery of any kind during any twenty-four-hour period (including aircraft), the storage and disposal of manure and the application, by spraying or otherwise, of chemical fertilizers, soil amendments, herbicides and pesticides. The County shall not consider an agricultural operation to be a public or private nuisance if the operation complies with these regulations and all federal, state or County health or environmental requirements.

SECTION 1A02
R.C.3 (Deferral of Planning and Development) Zone

§ 1A02.1. Legislative policy. [Bill Nos. 178-1979; 54-2004[7]]

A. The R.C. 3 zoning classification and its regulations are established as a rural development zone to foster conditions favorable to agricultural and residential use of the land while still maintaining the rural character of the area.

B. Location. The R.C.3 classification may be applied only to land that lies beyond the urban-rural demarcation line, as established in the 1975 Master Sewer and Water Plan, as amended from time to time.

§ 1A02.2. Use regulations.

A. Uses permitted as of right. The following uses, only, are permitted as of right in R.C.3 Zones:

1. Churches or other buildings for religious worship.

2. Dwellings, one-family detached.

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7. **Editor's Note: This bill also stated that it would not apply to any concept plan or application for limited exemption or waiver accepted for filing prior to June 7, 2004, and that any structure, building or use in existence prior to the effective date of this bill that is damaged or destroyed by fire or other casualty after the effective date of this bill would be subject to the provisions of Section 104 of the Baltimore County Zoning Regulations regarding nonconforming uses. The effective date of this bill is 6-11-2004.**

ARTICLE 6

INTERPRETATION AND VALIDITY

SECTION 600
Interpretation

§ 600.1. Interpretation of provisions.

SECTION 601
Validity

§ 601.1. Validity of provisions.

Attestations

SECTION 600
Interpretation
[BCZR 1955]

§ 600.1. Interpretation of provisions.

In their interpretation and application, these regulations shall be held to be the minimum requirements for the promotion of the public health, safety, convenience and general welfare. Where these regulations impose a greater restriction on the use of buildings or land or on the height of buildings, or require larger yards, courts or other open spaces, or impose other higher standards than are imposed by the provisions of any law, ordinance, regulation or private agreement, these regulations shall control. When greater restrictions are imposed by any law, ordinance, regulation or private agreement than are required by these regulations, such greater restrictions shall not be affected by these regulations.

SECTION 601
Validity
[BCZR 1955]

§ 601.1. Validity of provisions.

If any section, paragraph, subdivision, clause or provision of these regulations shall be adjudged invalid, such adjudication shall apply only to the section, paragraph, subdivision, clause or provisions so adjudged, and the remainder of the regulations shall be deemed valid and effective.

The Board of County Commissioners of Baltimore County hereby declares that it would have adopted these regulations and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

People's Counsel
CBA Exhibit

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§ 33-3-108. - PLAN INFORMATION.

(a) *Required.* In accordance with § 33-3-104 of this title or Article 32, Title 4 of the Code, a plan approved by the Department is required for all development, forest harvesting operations, surface mining operations, and agricultural operations.

(b) *Details of plan — In general.* The plan shall include an informative, conceptual, and schematic representation of the proposed activity by means of maps, graphs, charts, or other written or drawn documents to enable the Department to make a reasonably informed decision regarding the proposed activity.

(c) *Same — Specific requirements.* The plan shall contain the following information:

(1) A location or vicinity map;

(2) Property lines;

(3) Existing structures or facilities, including buildings, roads, wells, and sewage disposal systems (include 100 feet into adjacent properties where possible);

(4) Existing and proposed contour lines;

(5) Proposed sewage disposal areas;

(6) Field delineated, marked, and surveyed streams, springs, seeps, bodies of water, and wetlands (include 200 feet into adjacent properties where possible);

(7) Field delineated, marked, and surveyed forest buffers;

(8) Department of Public Works approved riverine floodplain limits;

(9) Soils mapped and labeled in accordance with the soil survey of the county;

(10) (i) Slopes greater than 10% for areas adjacent to and within 500 feet of streams, wetlands, or other bodies of water; and

(ii) Slopes greater than 25% for all other areas;

(11) Rare species, threatened species, or endangered species habitat;

(12) Existing vegetation;

(13) Location and type of stormwater management devices and practices;

(14) Building envelopes;

(15) Existing and proposed utility lines and easements;

(16) Historical and archaeological sites;

(17)

People's Counsel
CBA Exhibit
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A note indicating: "There shall be no clearing, grading, construction or disturbance of vegetation in the forest buffer, except as permitted by the Baltimore County Department of Environmental Protection and Sustainability"; and

(18) Supporting documentation for variance requests, including alternatives analyses and conceptual mitigation plans.

(1988 Code, § 14-338) (Bill No. 224, 1990, § 1, 1-1-1991; Bill No. 94-02, § 2, 7-1-2004; Bill No. 122-10, § 13, 1-16-2011)

Marni Leigh Carroll

Qualifications Fourteen years of experience in the renewable energy industry as regional director, project developer, and federal policy lead. Deep transactional experience with small and large scale solar and wind projects across the country. Successfully executed greenfields, acquisitions and joint ventures totaling more than 400 MWs (megawatts) of operating wind and solar projects.

Experience

2017-Current **OneEnergy Renewables** Washington, DC
Director, Project Development

- Lead a portfolio of community solar projects in Maryland and utility scale projects in Virginia
- Implement company commitments to pollinator-friendly solar habitat
- Advocate for clean energy policy including testifying at state legislative hearings
- Representative for the company at MDV-SEIA (Solar Energy Industry Association)

2014-2017 **Sun Edison, LLC/ForeFront Power, LLC** Bethesda, MD
Director, PJM and NE-ISO

- Responsible for a portfolio of over 30 solar projects in NE-ISO and PJM regions
- Oversee strategy, budgets and forecasts for rooftop, landfill, ground, and canopy projects
- Managed and trained a team of seven junior project managers and project analysts
- Drove 12 MW of rooftop and ground mounted projects in Maryland from inception to operation

2009-2014 **Avangrid (Iberdrola USA and Iberdrola Renewables)** Washington, DC
Manager, Government Affairs

- Lobbied members of Congress and the Administration to promote clean energy
- Influenced policies of concern to Central Main Power, New York State Gas and Electric and Rochester Gas & Electric, the company's regulated electricity and natural gas distribution utilities
- Represented the company in trade associations including the American Wind Energy Association and the Solar Energy Industry Association

2007-2009 *Lead Developer,* Portland, Oregon

- Created east coast solar market entry strategy and originated portfolios in New Jersey and Maryland
- Led the development of more than 500 megawatts (MW) of wind projects in CA, OR, and WA including the 250 MW Juniper Canyon Wind Farm (WA) and 132 MW Tule Wind Farm (CA)

2004-2006 *Program Manager,* Portland, Oregon

- Managed budgets, and schedules and valuation of a 8,000 MW pipeline of wind and solar projects.
- Evaluated competitive landscape, acquisitions, and financial value of the pipeline

Education

Yale School of Management, Yale School of Forestry and Environmental Studies
Masters of Business Administration (MBA)
Master of Environmental Management (MEM)

University of California at Santa Cruz

- Bachelor of Arts (BA) in Environmental Policy, with Honors

PETITIONER'S EXHIBIT 3

Board of Appeals

Case No: 2018-194X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: Petitioner Date: 7/24/18

Exhibit No:	Description:
✓ 1A&1B	Site Plan to Accompany Special Exception for Solar Facility
✓ 2	Schematic Landscape Plan
✓ 3	CV of Marni Leigh Carroll
✓ 4	Summary of Sassafras Solar, LLC 2 MW Comm. Solar Project
✓ 5	MD & DE Certificates of Good Standing for Sassafrass Solar
✓ 6	Ltr. from Charles Gary Atkinson, owner
✓ 7A&7B	Support letters from Greater Balto. Sierra Club & Balto. 350.
✓ 8	Glare Gauge - Glare Study Analysis Results
✓ 9	CV of David L. Martin RLA V.P.
✓ 10	Photo Key & Photos of site Plan
7/24/18 KC ✓ 11	5/29/18 ltr. from James Hemann to Daft McCune Walker
✓ 12	CV of Matthew Durette, PE
✓ 13	CV of Eric C. Hadaway
✓ 14	Site Plan to accompany Special Exception for Solar Facility
	VERIFIED BY KC DATE: 7/26/18

Board of Appeals

Case No: 2018-194-X Case Name: Charles & Stephen Atkinson x 2

Exhibit List

Party: Petitioner Date: 7/25/18

Exhibit No:	Description:
✓ 15	Pictures relating to storm drainage, & stream
✓ 16	Balt. County - My Neighborhood 1:144,448 7/13/18
✓ 17	Map: MD Focal Areas - Targeted Ecological Areas Ba H. Co.
✓ 18	CV of Mitchell J. Kellman, VP - Dir. of Zoning Svcs.
✓ 19	Scenic Gateways & Views Map
✓ 20	5/2/18 Ltr. from Jablon to Kellman re: DAC
✓ 21	USDA-NRCS Soil Map (East of Middletown Rd) & Map Unit Legen
✓ 22	Map from Witness Lynne Jones prop. to Atkinson prop.
✓ 23	CV of David Straitman, SRA
✓ 24	Economic Impact Study by David Straitman
	VERIFIED BY KC DATE: 1/17/19

KC 7/26/18

YZ 10/9/18

@oneenergyinc



Sassafras Solar, LLC

2 MW Community Solar Project

by OneEnergy Renewables

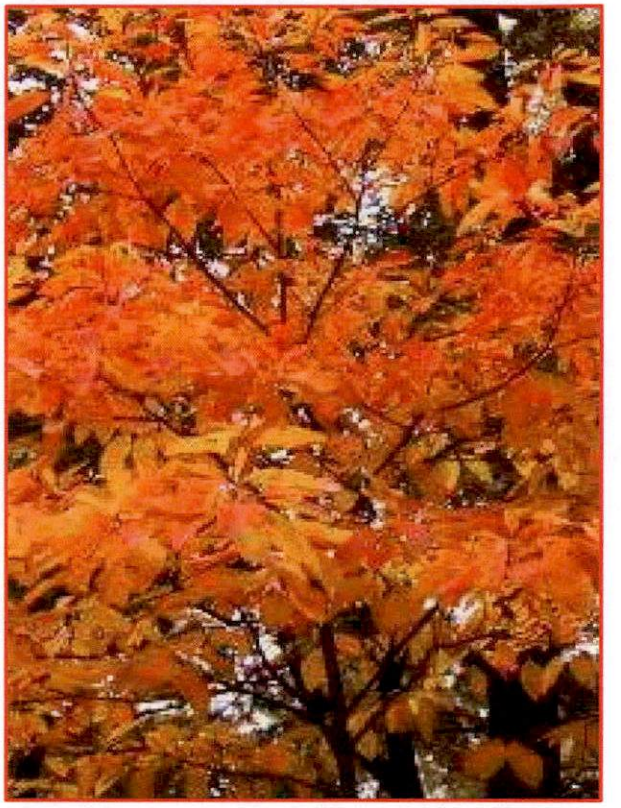
PETITIONER'S EXHIBIT 4

Who We Are

Sassafras Solar, LLC is owned by OneEnergy Renewables, a national solar energy developer founded in 2009.

Our Maryland projects include:

- 4.3 MW Cambridge Solar, serving Baltimore National Aquarium
- 13 MW Wye Mills Solar, serving John Hopkins Medicine



The Sassafras tree (sassafras albidium) provides critical habitat to a variety of moths and butterflies and birds native to Baltimore County

Our Projects provide:

→ 6,800 homes powered with clean, green energy

→ Equivalent to planting 1.1 million seedlings

→ 45,000 metric tons of avoided greenhouse gas emissions

OneEnergy RENEWABLES

Solar Panels

Photovoltaic (PV) panels are made primarily of glass, aluminum and silicon (referred to as a crystalline solar cell)

PV panels are not considered hazardous to the environment and are nonflammable[1]

PV panels have an anti-reflective coating that prevents glare and are designed absorb 98% of light, reflecting as little as 2% of sunlight – the same amount of reflection observed off still water

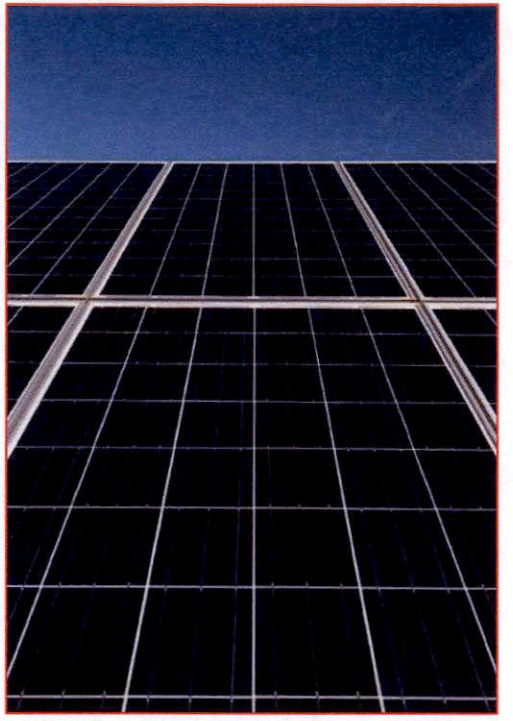


Image 1: multiple crystalline solar cells

NREL Report: The Safety of Photovoltaic
https://www.nrel.gov/docs/fy99osti/24618.pdf

OneEnergy RENEWABLES

Racking System

Solar panels will be mounted on a single-axis tracking system supported by a single post (galvanized steel or aluminum).

Racking supports (posts) are placed between 10 and 30 feet apart

There is no disturbance to the soils in between each post

The maximum height of the system, including 2 feet of ground clearance, is 10-12 feet

At the end of the useful life of the equipment, the piles will be removed, and the area reseeded with native grasses

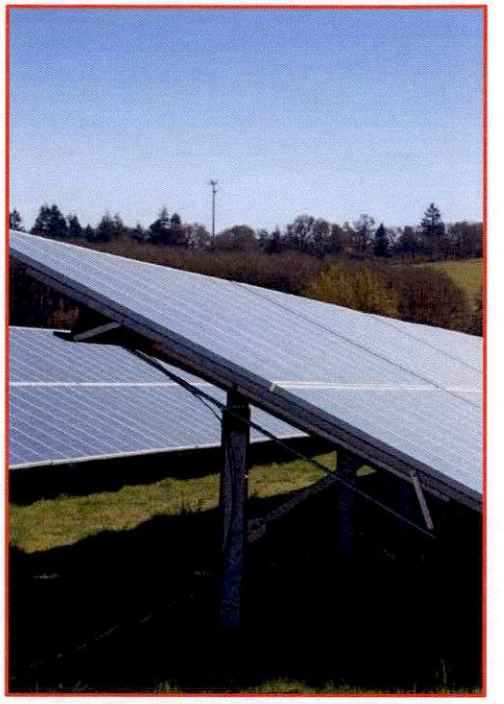
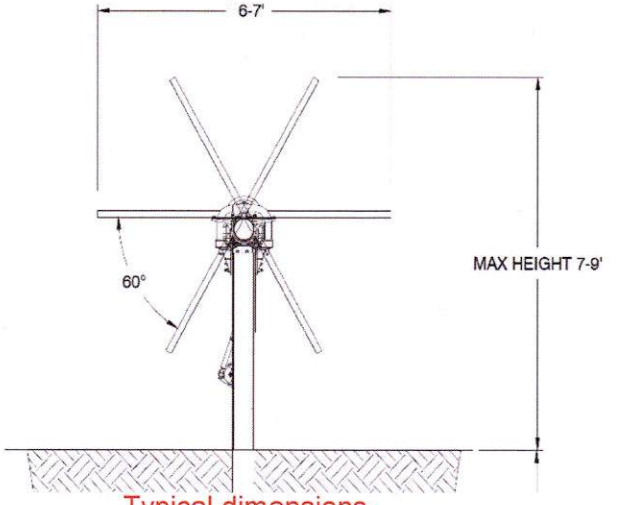


Image 2: Single axis tracker racking system



Typical dimensions

OneEnergy RENEWABLES

Inverters and Transformers

Inverters convert solar energy generated into a form of electricity that can be used on the electrical grid

Transformers increase the voltage to that of the utility's electrical lines

The energy generated by the solar farm is distributed away from the project site and increases reliability in the nearby areas

No substation or large, transmission-type utility line construction is required

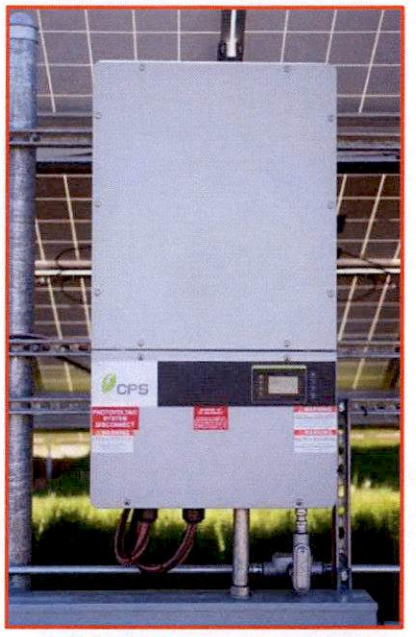


Image 3: String-type inverter

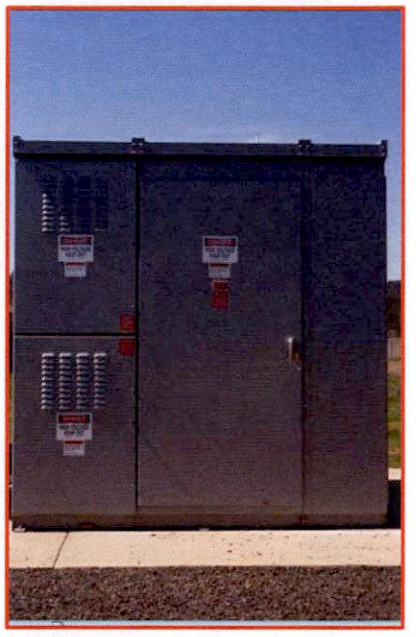


Image 4: Transformer Cabinet

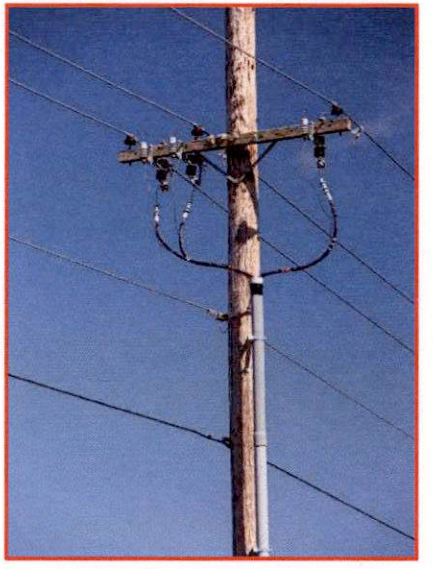


Image 5: Utility pole

OneEnergy RENEWABLES

Construction

Construction of a solar project typically occurs over 2-3 months, with the majority of the activity in the first four weeks

First, main access roads are graveled and erosion and sediment control best practices are installed.

Panels are then delivered on flat-bed trucks and stored in a designated laydown area. Truck traffic will be minimal after these deliveries

Piles are driven or screwed into the ground by a pile-driving machine to a depth of approximately 6 to 8 feet

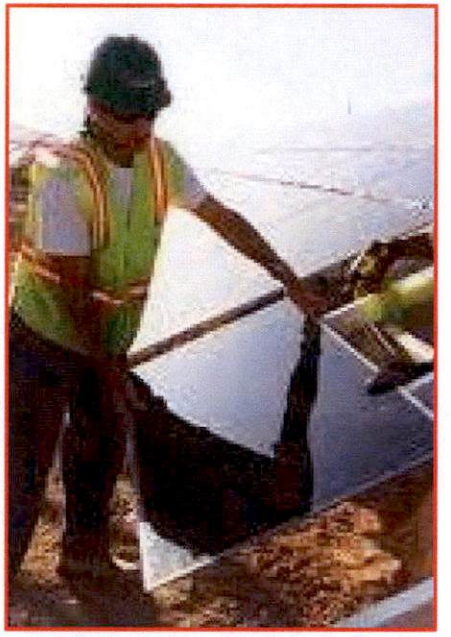


Image 6: Solar panel mounting to the racking system



Image 7: Pile-driver

The racking system is assembled on the piles and the panels are mounted

Electrical cables are installed and safely enclosed in trays underneath the panels

Underground electrical conduit connects the inverters to the utility's electricity line via a small diameter, enclosed trench, which is ultimately covered and reseeded

OneEnergy RENEWABLES

Operation and Safety

After the project begins, the only onsite activities are a once-quarterly routine maintenance check of equipment.

The system is remotely monitored around the clock.

The site is also mowed two to three times per season to control for invasives. Once the pollinator species are established, even fewer mowing trips are required.

A chain link or equivalent fence will protect residents from unauthorized access.

In the unlikely case of unauthorized access, PV panels are fully enclosed and electrical wiring is secured.

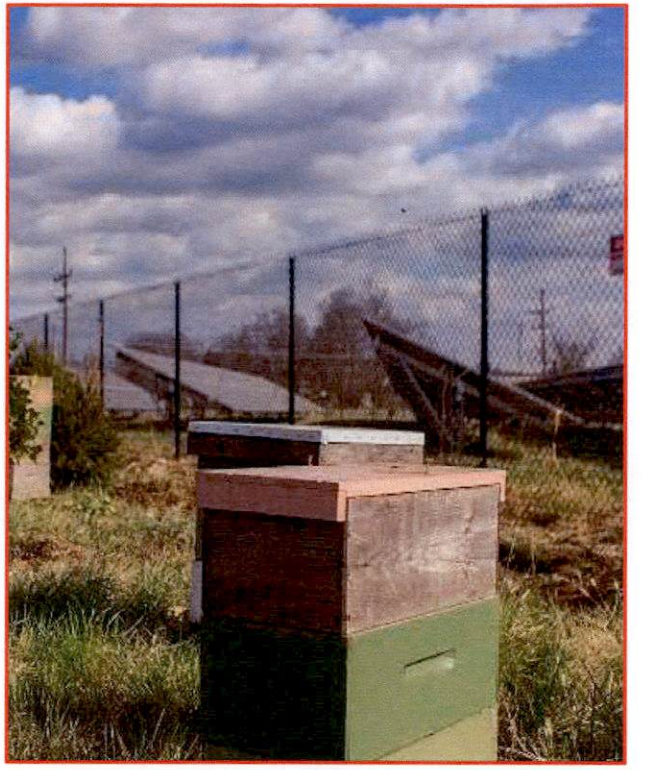


Image 8: Fencing (with beehives in foreground)

OneEnergy RENEWABLES

Solar Honey

OneEnergy developed and supported Maryland's first operating solar facility that is co-located with both pollinator habitat and apiaries.

The design of this site exceeds state standards for pollinator friendly solar.

Located in Frederick County, the project hosts 30 honey bee apiaries, (managed by Editor in Chief of the American Bee Journal) and will produce SolarHoney™



Image 9: Solar Honey produced by Bolton Bees

OneEnergy RENEWABLES

STATE OF MARYLAND
Department of Assessments and Taxation

I, MICHAEL L. HIGGS OF THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION OF THE STATE OF MARYLAND, DO HEREBY CERTIFY THAT THE DEPARTMENT, BY LAWS OF THE STATE, IS THE CUSTODIAN OF THE RECORDS OF THIS STATE RELATING TO LIMITED LIABILITY COMPANIES , OR THE RIGHTS OF LIMITED LIABILITY COMPANIES TO TRANSACT BUSINESS IN THIS STATE, AND THAT I AM THE PROPER OFFICER TO EXECUTE THIS CERTIFICATE.

I FURTHER CERTIFY THAT SASSAFRAS SOLAR, LLC (Z18494674) , REGISTERED JANUARY 05, 2018, IS A LIMITED LIABILITY COMPANY EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF DELAWARE, AND THAT THE LIMITED LIABILITY COMPANY IS AT THE TIME OF THIS CERTIFICATE IN GOOD STANDING TO TRANSACT BUSINESS.

IN WITNESS WHEREOF, I HAVE HEREUNTO SUBSCRIBED MY SIGNATURE AND AFFIXED THE SEAL OF THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION OF MARYLAND AT BALTIMORE ON THIS JUNE 05, 2018.

PETITIONER'S EXHIBIT 5

Michael L. Higgs
Director

301 West Preston Street, Baltimore, Maryland 21201
Telephone Baltimore Metro (410) 767-1340 / Outside Baltimore Metro (888) 246-5941
MRS (Maryland Relay Service) (800) 735-2258 TT/Voice

Online Certificate Authentication Code: zY6Z9Gb40kOM1SvF_tMpwQ
To verify the Authentication Code, visit http://dat.maryland.gov/verify

Delaware

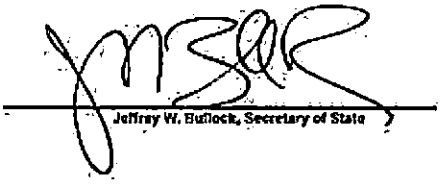
The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "SASSAFRAS SOLAR, LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE FIFTH DAY OF JUNE, A.D. 2018.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "SASSAFRAS SOLAR, LLC" WAS FORMED ON THE EIGHTEENTH DAY OF DECEMBER, A.D. 2017.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN PAID TO DATE.





6668144 8300

SR# 20184960306

Authentication: 202819297

Date: 06-05-18

You may verify this certificate online at corp.delaware.gov/authver.shtml

My name is Charles Gary Atkinson and I reside at 632 Freeland Rd. Various members of the family have lived on this farm since 1810. My grandmother and grandfather preceded me and acquired the farm from a deceased relative's estate in 1947. I have always treasured the farm and its woodland and stream and was pleased when One Energy Renewables requested a lease for a solar facility. This option was perfect for me because I believe that the lease will make the farm too valuable for my descendants to want to change it to some type of development.

I am very protective of the resources on my farm such as the stream, which I have used for drinking since I was a small child. Also in the past we have had farmers whose practices were not the best for the land and they created runoff problems. I am fortunate in having found a farmer who uses no till methods and natural fertilizer from a dairy operation. His crop yields of field corn and soybeans have been increasing over the years because of his good practices. I believe a solar facility will be in harmony with our farming. I do have the zoning to put in a hog farm if I wished but the smell and noise and constant roar of equipment would be terrible in comparison to a quiet, odorless solar facility which just sit there using energy from the sun which would be otherwise wasted.

I am very much in favor in reducing the dependence on fossil fuels and the pollution that results from its use. I believe that wind and solar are the wave of the future and will leave clean air for my grandchildren and their children. I believe solar is a good option for a farm since at any time in the future it could be removed and leave the land just as it was before it was installed. You can't say the same for a house or shopping center. Also Maryland's Renewable Portfolio Standard requires that 20% of Maryland's electricity be supplied by renewable energy sources by 2020. There are those who are trying to get this increased to 30%. Any decrease in the use of fossil fuels will be a gift to our descendants in lowering air pollution and cleaner water.

I believe a solar facility is the best option for making the farm self-supporting and leaving a large amount of land which will continue to be farmed in an environmentally safe way. I would like to think that some day my descendants will say that I was in on the beginning of the wave of the future in producing clean, pollution free energy.

Charles Gary Atkinson 7-18-18

PETITIONER'S EXHIBIT 6

July 23, 2018

Board of Appeals
Baltimore County
Jefferson Building, Suite 103
105 West Chesapeake Avenue
Towson, Maryland 21204

Dear Board of Appeals:

The Greater Baltimore Sierra Club is dedicated to protecting the Baltimore region's natural and wildlife resources, monitoring legislation, sponsoring outings, and educating the public about pressing environmental issues.

We are writing you to express our support for Maryland's Community Solar Pilot Program and to urge you to play a leading role in implementing community solar projects. We respectfully urge you to approve community solar projects proposed in Baltimore County that comply with county regulations for ground-mounted solar enacted in 2017 (Bill No. 37-17).

Baltimore County underwent extensive public dialogue in 2017 to determine appropriate standards for ground-mounted solar. Policymakers took into consideration the views of citizens and organizations across the county in public forum. The result of this lengthy public discussion was Bill No. 37-17, which the County Council and County Executive enacted into law.

Nearly half of all Americans currently cannot access the benefits of solar energy, according to the National Renewable Energy Laboratory. That is why Maryland created the Pilot Program - a new way for residents to access clean energy without having to put solar panels on rooftops. Best of all, it gives them a chance to save money on their electric bills.

The projects you will consider July 24th are expected to avoid nearly 100,000 tons of carbon pollution, the equivalent of avoiding more than 240 million gas-miles driven by cars. They will also provide participating landowners in Baltimore County a source of new revenue to help ensure their farms remain farms.

The Sierra Club's mission statement includes the commitment to, *"practice and promote the responsible use of the earth's ecosystems and resources."* Community solar projects in Baltimore County bring us one step closer to fulfilling this mission. Please approve community solar projects that comply with county regulations.

Thank you for your consideration.

Very truly yours,

Deborah Kleinmann

Deborah Kleinmann - Chair of Greater Baltimore Group Sierra Club

Petitioner
CBA Exhibit
7A

July 22, 2018

Board of Appeals
Baltimore County
Jefferson Building, Suite 103
105 West Chesapeake Avenue
Towson, Maryland 21204

Dear Board of Appeals:

Baltimore350.org is the local chapter of 350.org, a grassroots movement dedicated to building 100% clean energy solutions that work for all.

We strongly support Maryland's Community Solar Pilot Program and believe Baltimore County can be a model for the state and the nation for responsible implementation of community solar projects.

We ask that you approve community solar projects proposed in Baltimore County that meet county regulations for solar as outlined Bill No. 37-17 enacted in 2017.

The project you will consider on July 24th[th] will avoid nearly 100,000 tons of air pollution over its lifetime. The project will also incorporate native pollinator habitats and may employ a local beekeeper to produce honey. Not only are pollinator habitats beautiful to the eye, but they also help protect vital pollinator species that are responsible for one in every three bites of food we eat.

Citizens in Baltimore County had ample opportunity to make their views known about ground-mounted solar last year as Bill No. 37-17 was considered. The bill is now law. Our focus must turn to approving projects that meet the regulations.

Community solar solves a big societal problem. Too many Americans cannot access solar because they do not own their home, cannot afford solar panels, or do not have roofs that support solar. Community solar projects like the one you will consider July 24th are designed to ensure these residents can access clean solar power and also have a chance to save on their electric bills.

We urge you to approve community solar projects that comply with county regulations.

Sincerely,

David Neun
Founder
Baltimore 350

Petitioner
CBA Exhibit
7B

GlareGauge Glare Analysis Results

Site Configuration: Revised Layout3

Project site configuration details and results.



Created **July 23, 2018 12:57 a.m.**
Updated **July 23, 2018 8:15 p.m.**
DNI **varies** and peaks at **1,000.0 W/m^2**
Analyze every **1** minute(s)
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
Site Configuration ID: 19887.3307

Summary of Results No glare predicted!

PV name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 60.0 deg
Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	39.719485	-76.676577	885.97	11.00	896.97
2	39.719502	-76.675397	888.45	11.00	899.45
3	39.716341	-76.675418	860.00	11.00	871.00
4	39.716358	-76.676652	859.51	11.00	870.51
5	39.716888	-76.676655	869.24	11.00	880.24
6	39.716887	-76.677175	864.41	11.00	875.41
7	39.718594	-76.677092	874.05	11.00	885.05
8	39.718611	-76.676620	878.87	11.00	889.87



Petitioner
CBA Exhibit
8

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	39.714773	-76.673686	848.61	6.00	854.61
OP 2	39.715566	-76.675467	861.55	6.00	867.55
OP 3	39.715797	-76.677430	837.00	6.00	843.00
OP 4	39.721136	-76.675746	900.50	6.00	906.50
OP 5	39.721136	-76.671980	858.88	6.00	864.88
OP 6	39.718405	-76.672742	863.54	12.00	875.54
OP 7	39.720171	-76.673353	869.55	12.00	881.55
OP 8	39.720393	-76.674147	886.10	12.00	898.10
OP 9	39.720451	-76.674888	899.04	12.00	911.04
OP 10	39.715303	-76.679364	874.17	12.00	886.17
OP 11	39.716286	-76.680930	840.22	12.00	852.23
OP 12	39.716624	-76.680399	839.34	12.00	851.34

PV Array Results

PV array 1

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values may differ.
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

PETITIONER'S EXHIBIT 9

DAVID L. MARTIN, RLA
VICE PRESIDENT

LICENSURE AND ACCREDITATION

Landscape Architect, Maryland, No. 776
Landscape Architect, Pennsylvania, No. 573-E

EDUCATION

The Pennsylvania State University, BS, Landscape Architecture, 1971

PROFESSIONAL SUMMARY

Professional practice includes 47 years of land planning, landscape architecture, comprehensive zoning, PUD master planning, site planning, and expert witness testimony regarding land use and zoning issues. Mr. Martin has been practicing in the Greater Baltimore Metropolitan region since 1987 and has been qualified as an expert in land planning, site planning, and zoning cases in Anne Arundel County, Baltimore County, Howard County, Harford County, Cecil County, Bel Air, Aberdeen, Havre de Grace, Perryville, Port Deposit and Federal District Court of Baltimore.

Prior to his relocation to Maryland, Mr. Martin practiced landscape architecture and land planning in Pennsylvania, Florida, Massachusetts, Alabama, The Commonwealth of the Bahamas and Jamaica. As Vice President of DMW and formerly President of Martin & Phillips Design Associates, Inc. Mr. Martin supervises community planning, site development, subdivision development plans, and master planning efforts, He also offers zoning testimony and interpretation on land planning issues before zoning commissioners, boards of appeals, planning commissions, and elected bodies. Mr. Martin facilitates community input meetings and presents Development Plans in Baltimore County and oversees the preparation of special exception and variance plan requests. He also directs the design of parks, amenity features, lighting plans and landscape plans associated with residential, commercial and institutional projects.

Significant projects include Developments of Regional Impact (DRI) in the State of Florida including; Palm Coast, Florida - 10,000 acre master plan, Beverly Hills, Florida - 6,500 acre master plan, and Doral Park, Florida - 2000 acre master plan. Representative local projects include: Hollywoods, Monmouth Meadows, Greenbriar, Bainbridge Development, Forge Landing, Owings Mills Commerce Center, The Avenue at Whitemarsh, Cedar Lane Farms P.U.D., Westwicke, Beaverbrook, Biddison Property, Bridle Ridge, Green Spring Station, Home Depot of Owings Mills, Bel Air and Timonium, Ashland Market Place, Powell Property, and Baker Property, Highlands Corporate Park, Preston Gateway North Industrial Park, Catholic Charities Senior Housing at the Village Crossroads (HUD). Baltimore County planned Unit developments include: Brandywine PUD, Chapel Springs PUD (HUD), The Residences at Soldier's Delight PUD and Loch Raven Commons PUD.

Mr. Martin has prepared numerous comprehensive-zoning petitions in Baltimore County during the quadrennial CZMP processes and has a thorough understanding of the principles of Euclidean zoning and their application throughout the Baltimore Metro region. He also served on an ad-hoc committee that authored the Service Employment (SE) Zone of Baltimore County and the Public Affairs Committee for NAIOP. He has extensive experience dealing with all the Baltimore Regional Area County's development regulations.

MEMBERSHIPS AND ASSOCIATIONS

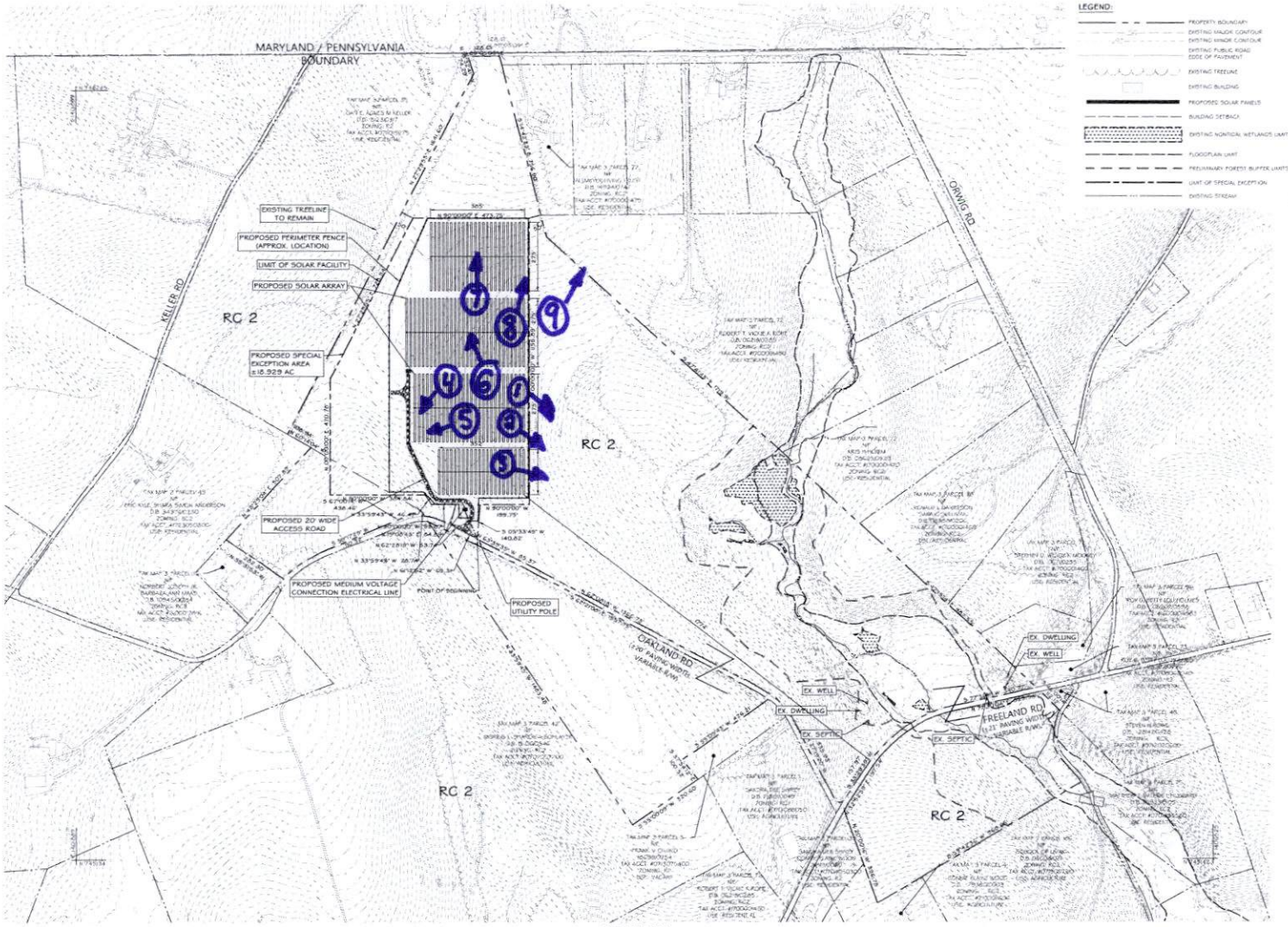
American Society of Landscape Architects, Member
Chairman Baltimore County Design Review Panel – Executive Appointment

PROFESSIONAL EXPERIENCE

Daft-McCune-Walker, Inc., Towson, MD - Martin & Phillips Design Associates, Inc.
Bradshaw, Gill, & Fuster, PA – Greenhorne & O'Mara, Inc. – M. Robert Fenton & Assoc.

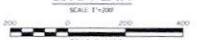
Petitioner
CBA Exhibit
9

PHOTO KEY



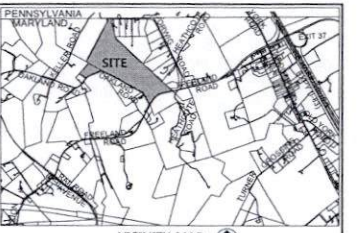
SITE PLAN

SCALE: 1"=200'



LEGEND:

- PROPERTY BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY; ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	07000990GO, DEED REF. #: 26823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER OR LESSEE:	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± SPECIAL EXCEPTION AREA ±16.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	407.00
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY "MY NEIGHBORHOOD" WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24035C0105F.
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY. A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEWED COUNTY RECORDS).

DATA SOURCE:

1. THE PROPERTY LINES, TOPOGRAPHY, FEMA MAPPED FLOODPLAINS, SOILS, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION, SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY (DMW).
2. THE NON-TIDAL WETLANDS, STEEP SLOPES, AND BUFFERS AS SHOWN WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 04/22/2016.

DRC #042418 C

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A.
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC5 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-106 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT.

DMW
DAFT MCCUNE WALKER INC
503 FAIRMOUNT AVENUE | SUITE 300, TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SITE PLAN TO ACCOMPANY SPECIAL EXCEPTION FOR A SOLAR FACILITY

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD.

SEAL

THIS PLAN IS SEALED FOR ZONING PURPOSES ONLY AND DOES NOT REPRESENT A FIELD SURVEY.

DATE	BY	REVISIONS

ISSUE DATES			
REVIEW:	7/17/18	BASE:	
BID:		DRAWN:	CHP
PERMIT:		DESIGNED:	MJK/EJC
CONSTRUCTION:		CHECKED BY:	
SCALE:	1" = 200'	DATE CHECKED:	
PROJECT NO.:	16046	DRAWING:	1 of 1

CASE #2018-0194-X

PETITIONER'S EXHIBIT 10

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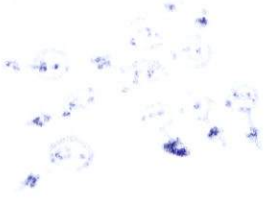
CBA Exhibit
10









PETITIONER'S EXHIBIT 11

KEVIN KAMENETZ
County Executive

ARNOLD JABLON
Deputy Administrative Officer
Director, Department of Permits,
Approvals & Inspections

March 29, 2018

Daft McCune Walker (DMW)
Mr. Mitch Kellman
501 Fairmount Avenue
Towson, Maryland 21286
Phone: 410-296-3333

Subject: Sassafras Solar
Zoning Case # 2018-0194-X
632 Freeland Road,
Freeland, Maryland 21053

Dear Mr. Kellman:

This is in response to your request for review of the Schematic Landscape Plan dated March 15, 2018. It has been reviewed and there are a number of comments to address landscape screening design, locations, proposed fencing height with slats for additional screening, etc. Based on a recent meeting held on March 29, 2018 with the design team, it is anticipated that the comments will be addressed as part of the next Schematic Landscape Plan submission and can be approved, provided the Special Exception is granted.

Sincerely,

James Hermann, RLA.
Landscape Architect, Development Plans Review

cc:

MATTHEW DURETTE, PE

PETITIONER'S EXHIBIT 12

2003 Western Avenue, Suite 225 Seattle, WA 98121

Qualification Summary

Professional Energy Engineer and Project Developer specializing in large solar project development, design, and integration.

Work Experience

Manager, Project Development ~ *OneEnergy Renewables* ~ January 2015 – Present

Engineering lead and Project Developer for the Seattle based, utility-scale, solar energy company. OneEnergy's development focus spans from greenfield to construction phases with up to 2 GWac capacity in a broad range of domestic markets. Specializing in photovoltaic (PV) system design and integration, I bring more than 8 years of experience to my role leading design through for concept, permits, and utility interconnection. Projects are ground mounted and consist of fixed tilt and single-axis tracking PV arrays from 2-80 MWac each in size. *Responsibilities include:*

- Establish company strategy for preliminary design approach and optimization
- Track and forecast industry design trends, select major equipment
- Manage an engineering task queue, with evolving priorities, across the portfolio
- Hire, manage and train an Associate Engineer and intern
- Self-perform generation of the site plan, electrical, and detail drawings
- Manage external Civil and Electrical engineering consultants to support internal efforts
- Oversee, standardize, and execute energy production modeling using PVsyst software
- Serve as key team resource for engineering support of new site selection and permit applications
- Lead technical response for utility interconnection process across all RTO/ISOs and utilities in portfolio
- Develop engineering standards, templates, and tools
- Collaborate with EPC, co-developer, and financing partner technical staff as required
- As a member of the ERCOT regional development team I also contributed to generalist assignments including, but not limited to: new site due diligence, land owner outreach, on-site visits, permit development, and regional development strategy

Project Development Engineer ~ *AMERESCO* ~ May 2009 – January 2015

Solar PV Project Responsibilities:

- Conduct site assessment to evaluate solar resource and project feasibility
- Select system components and architecture to minimize the levelized cost of energy
- Model system energy production
- Manage structural, geotechnical or environmental consultants
- Draft drawing sets in compliance with NEC and local building codes
- Facilitate utility, DEP, and customer approvals and permits
- Provide on-site construction supervision assistance
- Orchestrate project commissioning, startup, and performance testing
- Coordinate with the development team to standardize proposed designs
- Collaborate with the financing entity's technical advisors
- Assist operation and maintenance group to diagnose and execute repairs as required

Energy Efficiency Project Responsibilities:

- Perform all tasks necessary to complete ESCO project M&V Reports
- Utility bill analysis
- Energy audits, savings calculations, grant applications and project proposals

Project Experience: Over 9MW of roof mounted, ground mounted, and carport Solar PV installations now in operation. Several projects are highlighted below.

- City of Lowell – Served as lead engineer in all phases of a city wide solar feasibility study which led to the construction of 348 kW of PV mounted on 4 public schools and 1 historic city auditorium. This PPA project was awarded 2010 renewable project of the year by the Massachusetts AEE.

DAFT McCUNE WALKER

ERIC C. HADAWAY
VICE PRESIDENT, DIRECTOR OF ENVIRONMENTAL SERVICES

PROFESSIONAL SUMMARY
As Director of Environmental Services for Daft-McCune-Walker, Inc., Mr. Hadaway collaborates with landowners, land planners, engineers, architects and other design professionals to negotiate compliance with environmental laws and policies, creating environment-sensitive plans for residential, institutional, and commercial development projects that balance client goals with natural resources considerations. Mr. Hadaway also coordinates environmental compliance for public infrastructure projects, stream restoration, and other water quality improvements.

Mr. Hadaway is certified by the U.S. Army Corps of Engineers to perform nontidal wetland delineations and is well-versed in all aspects of Section 404 Permitting and Wetland Mitigation Design. He is also certified as a Maryland Forest Conservation Act Qualified Professional with over 24-years' experience conducting Forest Stand Delineations and preparing Forest Conservation Plans. Mr. Hadaway also conducts feasibility studies, natural resources inventories, and prepares water quality planting plans for bioretention, rain garden, shallow marsh, and other best management practices. His expertise in the area of nontidal wetlands and waterway construction permitting is key to DMW's success in obtaining necessary project approvals.

EDUCATION
Towson University, BS, Biology, 1987
Towson University, Graduate Study, Environmental Sciences

REPRESENTATIVE PROJECTS
Northeast Area (Honeygo) Elementary School, Baltimore County, MD
Water's Landing at Middle River, Baltimore County, MD
Quad Investments Property, Baltimore County, MD
Waterview, Baltimore County, MD
Bonnie View, Baltimore County/City, MD
Broadmead Retirement Community, Baltimore County, MD
Sheppard Pratt Gatehouse Drive, Baltimore County, MD
Delight Quarry, Baltimore County, MD
Lauenstein/Cape May Road, Baltimore County, MD
Crossroads at I-95, Baltimore County, MD
Devonport Community and Chrismar Marina, Baltimore County, MD
Dundee-Saltpeter Natural Area, Baltimore County, MD
Garrison Forest School, Baltimore County, MD

MEMBERSHIPS AND ASSOCIATIONS
American Council of Engineering Companies, Maryland, Member (Environmental Committee)
Baltimore County Engineering Association, Chairman
High Impact Environmental, Inc., Board of Directors
Integrated Vegetation Management Partners, Inc., Board of Directors

PROFESSIONAL EXPERIENCE
Daft-McCune-Walker, Inc., Towson, MD 1994-Present
PMT & Associates, Inc., Baltimore, MD 1991-1994

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501 Fairmount Avenue, Suite 300, Towson, MD 21286 p: 410 296 3333 f: 410 296 4705 www.dmw.com



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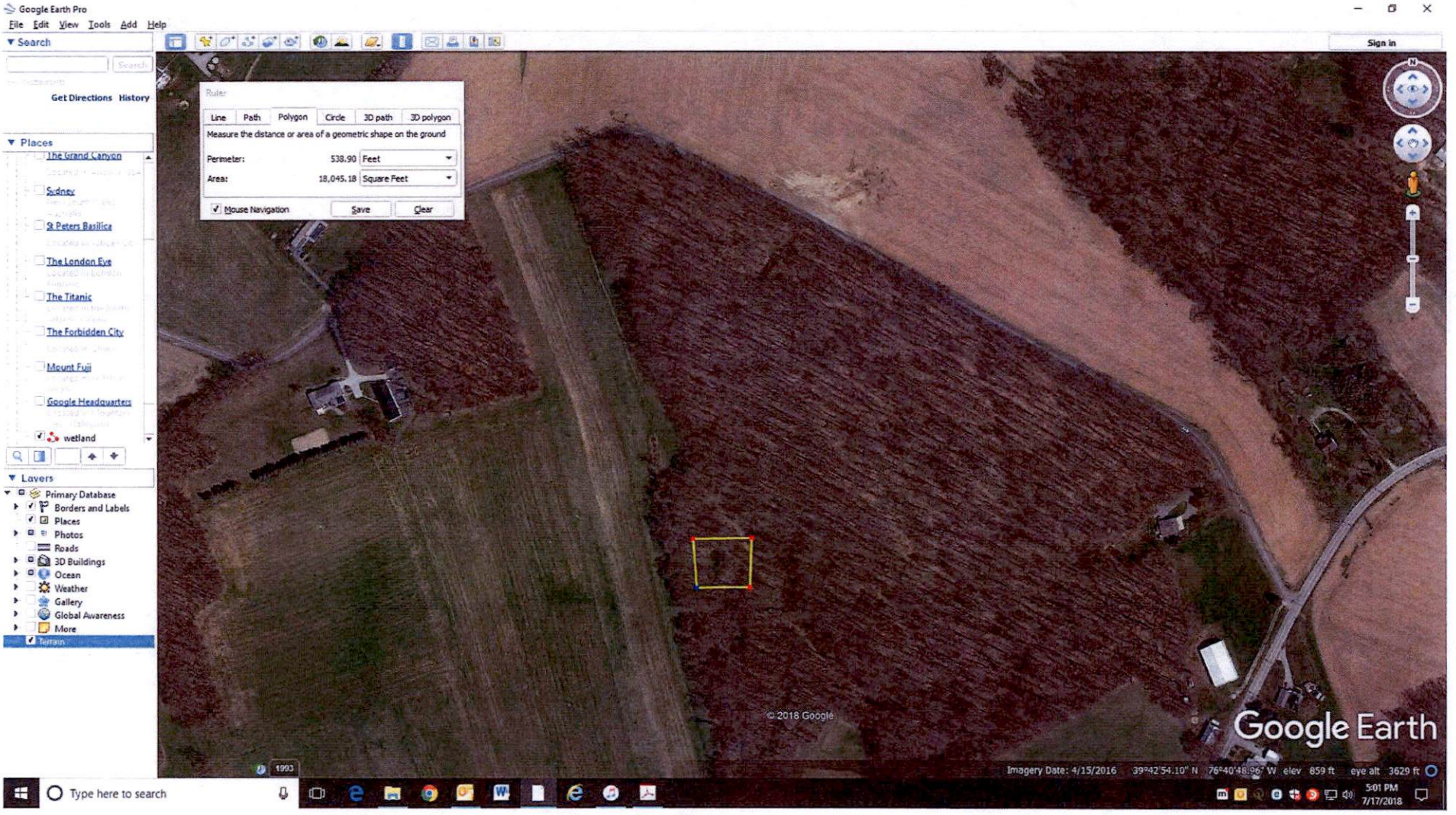
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The London Eye
The Titanic
The Forbidden City
Mount Fuji
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Borders and Labels
Places
Photos
Roads
3D Buildings
Ocean
Weather
Gallery
Global Awareness
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Terrain
Ruler
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Perimeter: 538.90 Feet
Area: 18,045.18 Square Feet
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Google Earth
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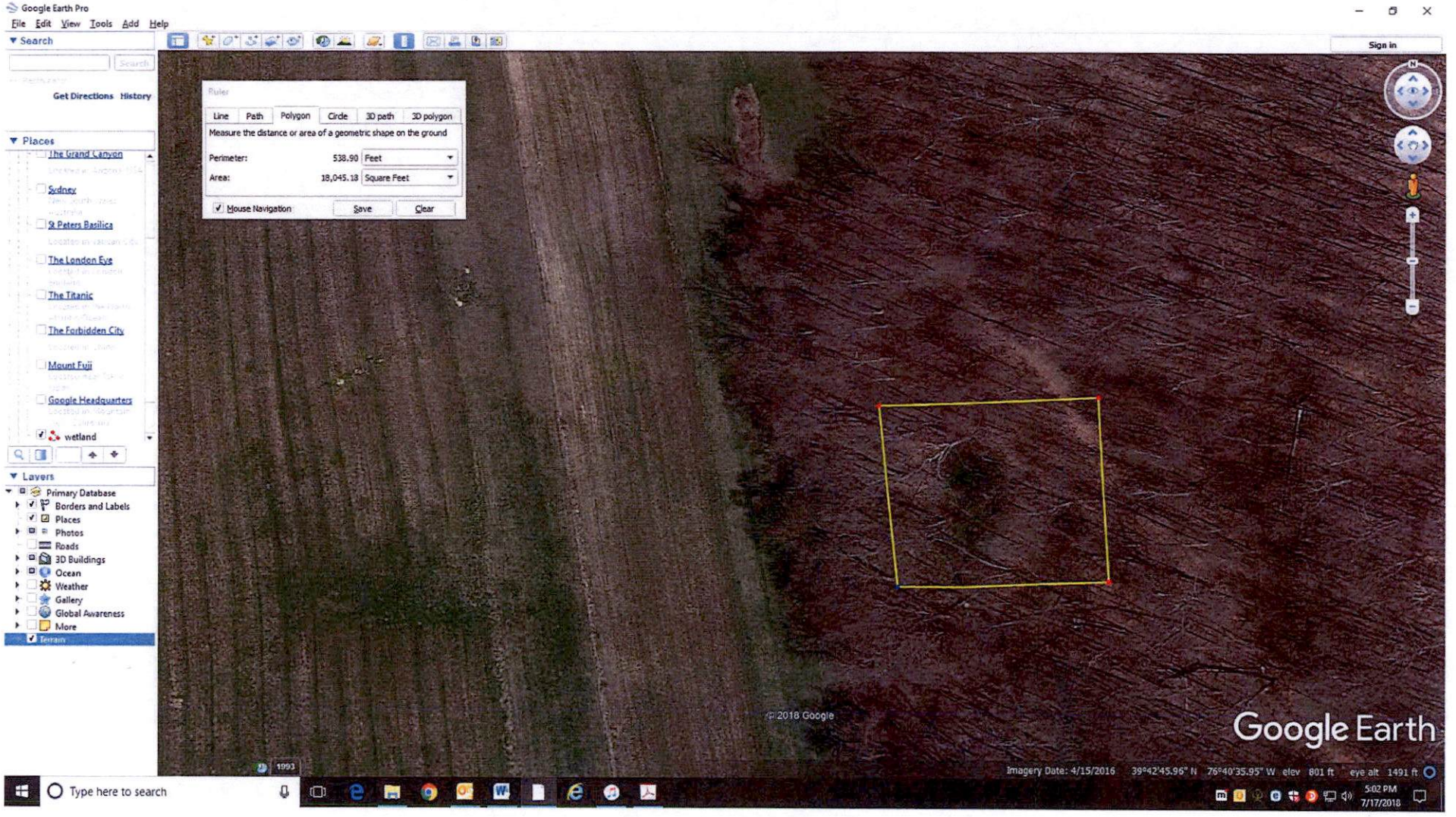
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Sydney
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The London Eye
The Titanic
The Forbidden City
Mount Fuji
Google Headquarters
wetland
Layers
Primary Database
Borders and Labels
Places
Photos
Roads
3D Buildings
Ocean
Weather
Gallery
Global Awareness
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Measure the distance or area of a geometric shape on the ground
Perimeter: 538.90 Feet
Area: 18,045.18 Square Feet
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©2018 Google
Google Earth
Imagery Date: 4/15/2016 39°42'45.96" N 76°40'35.95" W elev 801 ft eye alt 1491 ft
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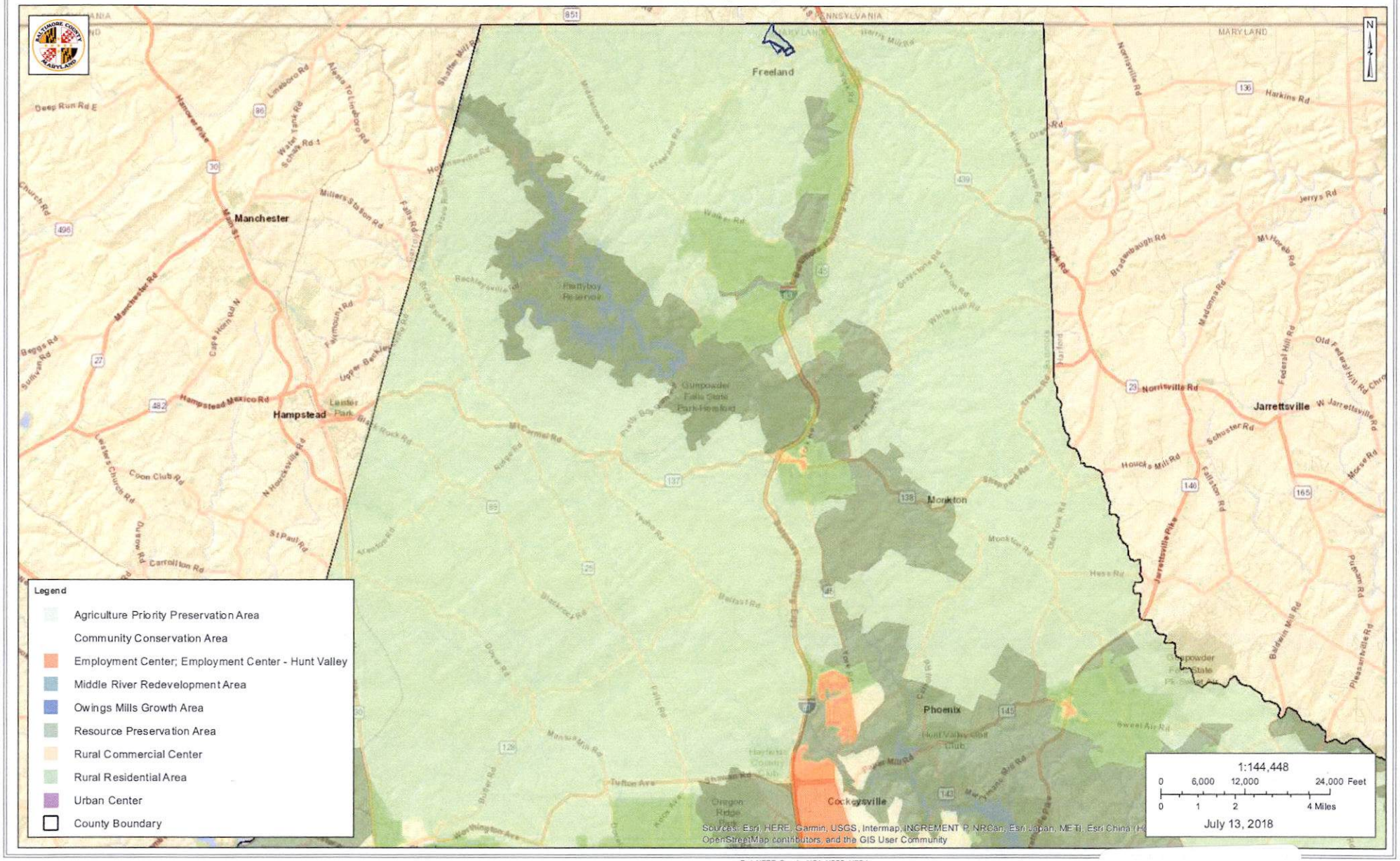
7/17/2018

Baltimore County - My Neighborhood



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MITCHELL J. KELLMAN

VICE PRESIDENT - DIRECTOR OF ZONING SERVICES

Education

Towson University, BA, Geography and Environmental Planning, Urban Planning

Towson University, Masters, Geography and Environmental Planning, Urban Planning

Professional Summary

Mr. Kellman has over 30 years of experience working in zoning, subdivision, and development regulations for the public and private sector; 15 of those years were with the Baltimore County Office of Planning and Zoning. His responsibilities included review, approval and signatory powers on behalf of the Director of Final Development Plans and Record Plats. He represented the Zoning Office on the County Development Review Committee, a body reviewing the procedural compliance of all development submissions. Review of petitions and site plans filed for zoning hearing approvals were within his authority. Additionally, he supervised county review staff, met with professionals and the public on development project matters, and made determinations regarding developments and their compliance with county regulations. In working for DMW, he has extensive experience in testifying before the Baltimore County Zoning Commissioner, Hearing Officer, Administrative Law Judges, and Board of Appeals. He also regularly represents the company at the Baltimore County Development Review Committee meetings. He is also a member of Baltimore County's Design Review Panel, which formulates design recommendations to the Planning staff and Administrative Law Judges, and the Landmarks Preservation Commission.

Partial List of Projects

Saint Michael's Roman Catholic Church, Howard County, MD

Hunt Valley Towne Centre, Baltimore County, MD

Charlestown Retirement Community, Baltimore County, MD

Goucher College, Baltimore County, MD

Greenspring Quarry, Baltimore County, MD

Norris Acura West, Howard County, MD

Sheppard Pratt Health Systems (Elkridge Campus), Howard County, MD

Towson Town Center, Baltimore County, MD

Corridor 95 Business Park, Howard County, MD

Memberships and Associations

Baltimore County Landmarks Preservation Commission, 2014, 2015, 2016, 2017, 2018

Baltimore County Design Review Panel, 2012, 2013, 2014, 2015, 2016, 2017, 2018

Greater Towson Committee, Planning & Development Sub-Committee, 2012, 2013, 2014, 2015, 2016, 2017, 2018

Greater Towson Committee, Government Relations Sub-Committee Chair, 2013, 2014, 2015

Greater Towson Committee Board of Directors – 2014 (Secretary), 2015, 2016, 2017, 2018

Leadership Baltimore County, 2013

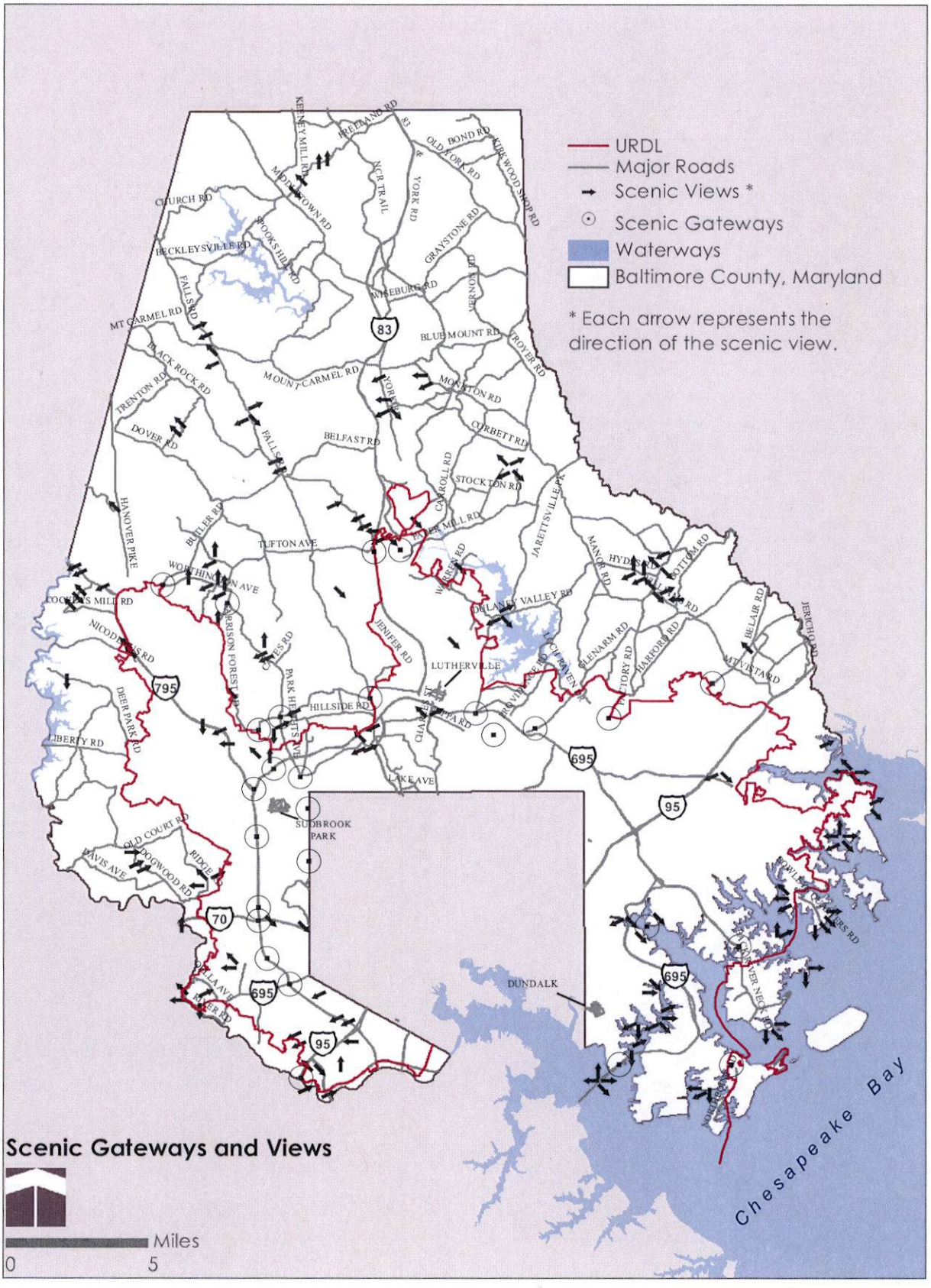
Leadership Baltimore County, Class Interviewer, Member, 2015

Professional Experience

Daft-McCune-Walker, Inc., Towson, MD: 2000-Present

Baltimore County Zoning Review Office, Towson, MD: 1985-2000

PETITIONER'S EXHIBIT 15



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Baltimore County Government
Department of Permits Approvals and Inspections
Development Management

111 West Chesapeake Avenue
Towson, MD 21204

410-887-3335

May 2, 2018

Daft McCune Walker, Inc.
Mitchell J. Kellman
501 Fairmount Avenue Suite 300
Towson, MD 21286

RE: Sassafras Solar
632 Freeland Road
Tracking Number: DRC-2018-00054
DRC Number: 042418C; Dist. 15C7

Dear Mr. Kellman:

Pursuant to Article 25A, Section 5 (U) of the Annotated Code of Maryland, and as provided in Section 602 (d) of the Baltimore County Charter, and Sections 32-1-101, 32-3-401, and 32-3-517 of the Baltimore County Code, this letter constitutes an administrative order and decision on the request for issuance, renewal, or modification of a license, permit, approval, exemption, waiver, or other form of permission you filed with this department.

Your request has been submitted for careful review and consideration to the Development Review Committee (DRC), which is composed of representatives from each of those departments involved in land-use decisions. These representatives are designees of the directors of these departments. The purpose of the DRC is to ensure compliance with Section 32-4-106 and Section 32-4-262 of the Baltimore County Code, and to make recommendations to the Director, Department of Permits Approvals and Inspections (PAI).

The DRC has, in fact, met in an open meeting on April 24, 2018, 2018, and made the following recommendations:

The DRC has determined, your project provisionally meets the requirements of a **limited exemption** under Section 32-4-106(a)(1)(vi).

Now that you have received this limited exemption, please proceed with building permit application.

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A copy of this letter must be presented when submitting engineering/construction plans to this office, and/or when applying for a building permit.

Please note that compliance with subtitles 3, 4 and 5 of Title 4, Article 32, Baltimore County Code, is required, as is compliance with all applicable zoning regulations. Phase 2 review fees may apply, depending on the amount of site disturbance, and/or the requirement of a Public Works Agreement. Also, sidewalks are required whenever the site is within the Metropolitan District.

Herein find a Zoning Review Hearing Checklist that will serve as a guide when preparing plans for building permit applications. Please be advised, plans not meeting minimum checklist requirements will not be accepted for filing. This will consequently delay building permit approval. Please note, the "conceptual" plan required for DRC review, does not necessarily meet the checklist guidelines. Therefore, it should not be assumed that the DRC plan is acceptable for building permit applications. Should you have any questions regarding the above, please contact the Zoning Review Section at 410-887-3391.

I have reviewed the recommendations carefully, and I have determined to adopt the recommendations set forth above. It is this 2nd day of May 2018, ordered and decided that the recommendations of the DRC are hereby adopted.

Should you submit an application for any permit that may be required for this project, your application will be processed subject to the conditions set forth above, and any plans, securities, or non-county permits that may be required in accordance with County, State, or Federal regulations.

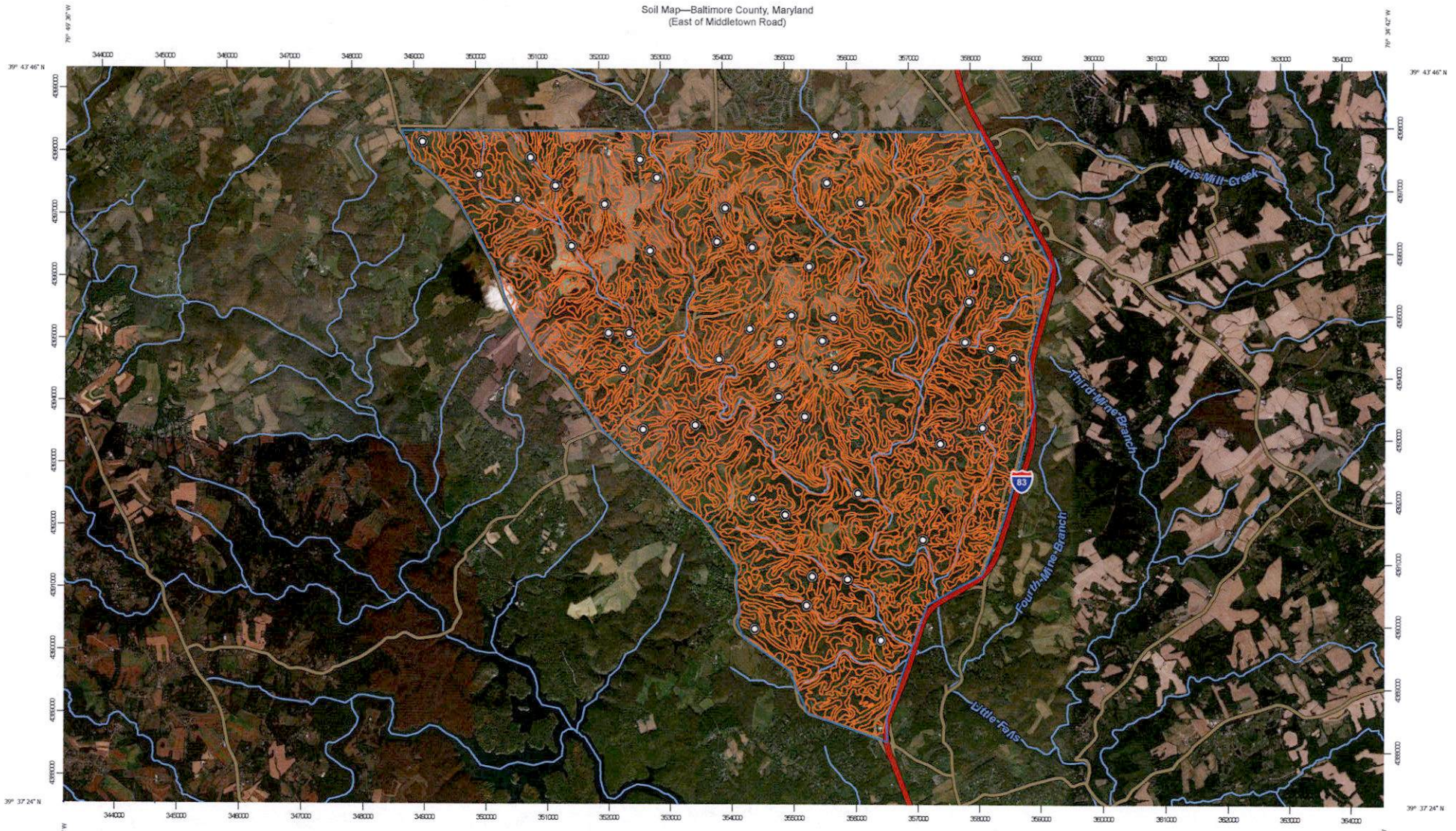
Sincerely,

Arnold Jablon
Director

AJ: JMC:dak

C: File
Venable, LLP; Adam M. Rosenblatt

Soil Map—Baltimore County, Maryland
(East of Middletown Road)



Map Scale: 1:57,400 if printed on B landscape (17" x 11") sheet.
Meters
0 500 1000 2000 3000
Feet
0 2500 5000 10000 15000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Baltimore County, Maryland
Survey Area Data: Version 12, Sep 18, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

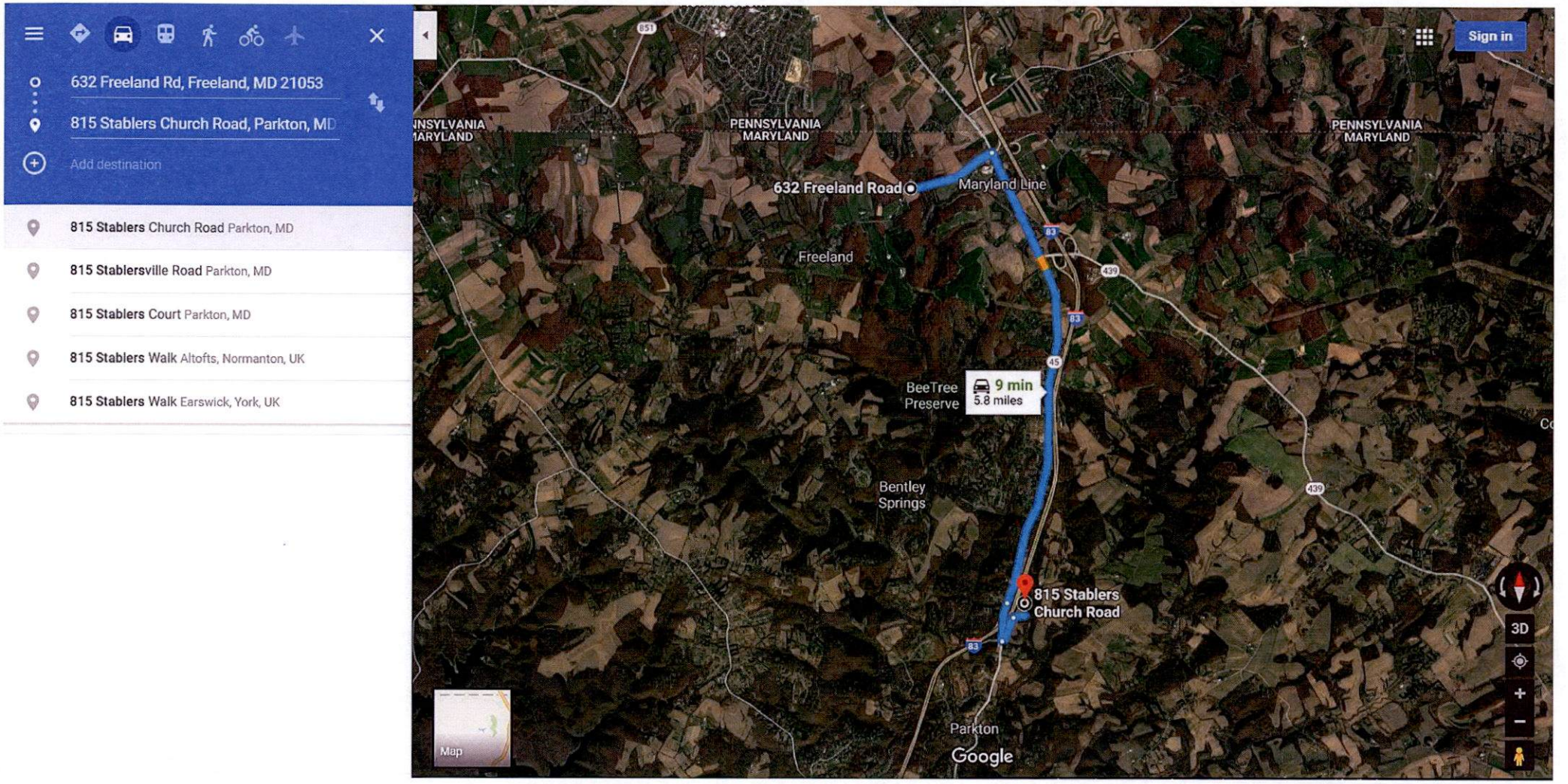
Date(s) aerial images were photographed: Aug 23, 2013—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Baile silt loam, 3 to 8 percent slopes	36.7	0.3%
BhB	Brinklow channery loam, 3 to 8 percent slopes	332.8	2.3%
BhC	Brinklow channery loam, 8 to 15 percent slopes	466.2	3.2%
BhD	Brinklow channery loam, 15 to 25 percent slopes	2,687.4	18.4%
CfA	Codorus silt loams, 0 to 3 percent slopes	887.0	6.1%
DbB	Delanco silt loam, 3 to 8 percent slopes	3.4	0.0%
GdA	Glenelg loam, 0 to 3 percent slopes	761.3	5.2%
GdB	Glenelg loam, 3 to 8 percent slopes	2,098.9	14.3%
GdC	Glenelg loam, 8 to 15 percent slopes	1,814.2	12.4%
GeB	Glenelg channery loam, 3 to 8 percent slopes	172.7	1.2%
GeC	Glenelg channery loam, 8 to 15 percent slopes	1,743.0	11.9%
GfB	Glenelg-Urban land complex, 0 to 8 percent slopes	23.8	0.2%
GhA	Glenville silt loam, 0 to 3 percent slopes	163.9	1.1%
GhB	Glenville silt loam, 3 to 8 percent slopes	895.3	6.1%
GhC	Glenville silt loam, 8 to 15 percent slopes	506.7	3.5%
HbA	Hatboro silt loams, 0 to 3 percent slopes	355.3	2.4%
MbD	Manor channery loam, 15 to 25 percent slopes	10.2	0.1%
MdE	Manor-Brinklow complex, 25 to 45 percent slopes, very rocky	1,480.4	10.1%
MdF	Manor-Brinklow complex, 45 to 65 percent slopes, very rocky	130.3	0.9%
UcF	Udorthents, highway, 0 to 65 percent slopes	40.1	0.3%
UuB	Urban land-Udorthents complex, 0 to 8 percent	7.8	0.1%
W	Water	12.7	0.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Totals for Area of Interest		14,630.2	100.0%



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David Straitman, SRA
2401 Cross Section Road
Westminster, MD 21158
410-848-4833

Certified Residential Real Estate Appraiser
Maryland License #03-20003
Pennsylvania Certified #RL139103

Licensed Real Estate Appraiser with experience in appraising all types of residential properties in the Maryland and Pennsylvania areas, as well as, small commercial properties in Maryland.

BUSINESS AND PROFESSIONAL EXPERIENCE:

Responsible for the research and preparation of appraisal reports and appraisal reviews. Appraisal assignments include: Residential, Single Family, Multi-Family, Condominium properties and Litigation Support, Small Commercial Properties. *Qualified in U.S. District Court, Anne Arundel County, Baltimore City and County, Carroll County, Frederick County Prince George's County, Howard County and York County Circuit Courts as an Expert, as well as, Carroll County Board of Zoning.*

Avalon Appraisers, LLC 2401 Cross Section Road Westminster, MD 21158	October 2003 to Present
Appraisers, Analysts and Advisors, Inc. AAA Appraisers 17 Warren Road, Suite 21A Baltimore, MD 21208	July 1993 to October 2003

EDUCATION:

B.S. Business Administration, Towson University, Major: Finance and Economics	January 1990
Designated SRA Member of the Appraisal Institute	**April 2008**

Appraisal Institute Courses:

Basic Appraisal Principles	February 1994
Basic Appraisal Procedures	February 1994
The Appraiser as Expert Witness	December 1995
Case Studies In Residential Highest and Best Use	September 1999
Residential Appraiser's Toolbox: New Tools to Meet Market	September 1999
Uniform Standards of Professional Appraisal Practice	June 1999
International Symposium – The Globalization of Real Estate	September 1999
Case Studies in Residential Highest and Best Use	September 1999
Introduction to Environmental Issues	November 2001
Narrative Report Writing	October 2002
Professional's Guide to the Uniform Residential Appraisal Report	April 2005
FHA and the New Residential Appraisal Forms	March 2006
Evaluating Residential Construction	June 2006
Business Practices and Ethics	June 2006
Valuation of Detrimental Conditions in Real Estate	July 2006
Advanced Residential Applications & Case Study	January 2007
Advanced Residential Report Writing	January 2007
Attacking and Defending an Appraisal in Litigation	July 2007
The New Residential Market Conditions Form	February 2009
Real Estate Finance Statistics and Valuation Modeling	March 2009
7-Hour National USPAP Update Course	February 2012
General Appraiser Sales Comparison Approach	March 2011
General Appraiser Market Analysis and Highest and Best Use	February 2012
General Appraiser Market Site Valuation & Cost Approach	October 2012
General Appraiser Income Approach/Part 1	February 2013
General Appraiser Income Approach/Part 2	May 2013

Petitioner
CBA Exhibit
23

General Appraiser Report Writing and Case Studies January 2014

LICENSES:

States of Maryland and Pennsylvania:

MD Certified Residential Real Estate Appraiser #30020003
PA Certified Residential Appraiser #RL139103
FHA Approved Appraiser in MD and PA

Partial List of Appraisal Clients

Southern Trust Mortgage
City of Westminster, MD
Robert Weltchek Esq.
BB&T Wealth Management
Bonnie Butler Esq.
J.P. Morgan Chase
Craig Habicht Esq.
Curtis Coon Esq.
Dawn Nee Esq.
GMAC Mortgage LLC
Adams County National Bank
PNC Bank
Michelle Ostrander Esq.
Debra Thomas Esq.
Presidential Bank
Stacie Dowling Esq.
Suellen Poland Esq.
Capital One Bank
Isaac Menasche Esq.
David Bowersox, Esq.
Bay Bank
Damian Halstad
Weisse Miller Law Offices
George Mason Mortgage
Carroll County Economic Development
Farmers and Merchants Bank

Economic Impact Study



LOCATED AT

632 Freeland Rd
Freeland, MD 21053
Dist:7, Map:3, Grid:19, Parcel:17, Liber:26823, Folio:303, 3/28/08.

FOR

OneEnergy Development, LLC
2003 Western Ave,, Suite 225
Seattle, WA 98121

AS OF

07/18/2018

Petitioner
CBA Exhibit
24

BY

David Straitman, SRA
Avalon Appraisers, LLC
2401 Cross Section Rd
Westminster, MD 21158-2611
410-848-4833
dave@avalonappraisers.com

Serial# C60A5011
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Owner	Charles Atkinson & Stephen Gordon					File No.	0180154Solar
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						

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Economic Impact Study

File No. 0180154Solar

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						

SUBJECT INFORMATION:

The subject property is located in the 7th election district. The legal description is as follows: Map 3, Grid 19, Parcel 17, Liber 26823, Folio 303, 03/28/2008. The present owners of Public Record are Charles Gary Atkinson and Stephen Gordon Atkinson. The tax account number is 04070701089060. The site consists of 99.46 acres of land, improved with an 1892 vintage two story renovated farm house and tenant house, known as 612 Freeland Road. The property is located in the RC 2 Zoning designated area of Baltimore County

Methodology:

1) Evaluation of Typical Valuation Externalities

There are many factors in a general neighborhood environment, which appraisers consider in valuing a residential property. These include positive factors, such as views, parkland, proximity to employment centers and proximity to amenities. Negative external factors, such as noise, hazardous odors, traffic, nuisances and unpleasant views may hurt the value of a home. I have evaluated the current use and the proposed variance to see if any externalities are likely to be present, which may impact values of adjoining properties.

2) Examination of Comparable Situation

Another way to determine the impact of a change on neighboring residential values is to compare the subject's situation to a comparable situation, which has been in place for a number of years to enable an analysis of value trends over time. These value trends are evaluated by comparing arm's-length sale prices for adjoining properties with the neighborhood prices over time. We have also researched sale/resale of properties before and after construction of a solar farm.

SCOPE of WORK:

The scope of work in order to accomplish the results of this assignment include the following:

1. Inspection of the subject property from the site and Google aerial photographs.
2. A review of the site plans
3. Review of other ground solar facilities from within the area.
4. Research of the zoning for other solar facilities.
5. Consultation with other solar companies, and owners of other solar properties.
6. Drawn conclusions concerning the subject's impact on the values of adjoining properties.
7. Consultation with the owner and neighbors surrounding the subject proposed facility of 632 Freeland Road.

DESCRIPTION OF IMPROVEMENTS:

The proposed solar farm is located in the northern section of the subject's 99.46 acres of land. The property is improved with a 1892 era renovated farm house containing approximately 3,900 sq. ft. of living area. There is also a tenant house known as 612 Freeland Road. The site straddles both Freeland Road and Oakland Road and is bounded by other agricultural and residential properties.

Topography of the overall property is rolling, with the solar farm site also being rolling with a wooded buffer at the east and north side. In addition there are several wooded sections surrounding portions of the perimeter, creating a good buffer between the properties.

Economic Impact Study

File No. 0180154Solar

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						

ZONING:

The subject is located in the RC 2 (Agricultural) District, as are the adjoining properties.

The following are some principal permitted uses:

Farm, Farmette, Single-Family Detached Dwellings, Farmer's Roadside Stand, Tenant House.

Typical Uses Permitted by Special Exception:

Antique Shop, Animal Boarding Place, Church, Farm Market, Landscape Operation, Agricultural Support Uses and Solar Farms.

FACTORS AFFECTING VALUE:

Standard appraisal sources (e.g. Appraising Residential Properties, Fourth Edition, published by the Appraisal Institute, Real Estate Damages Applied Economics and Detrimental Conditions, Second Edition, published by the Appraisal Institute, Applications in Litigation Valuation A Pragmatist's Guide)

Factors to be Evaluated

Relevant to this case, I have evaluated the proposed special exception to see if any externalities are likely to be present or have been present, which might possibly impact values of adjoining residential properties.

- **Noise -** I have found that the proposed use, which is being asked for in this case will not generate any noise greater than a typical agricultural and residential use.
- **Hazards/Odors** - I have found there are no odors nor potential hazards with running a solar farm.
- **Nuisance Behavior** - I have found based on my site visit and conversations with the owner there is no nuisance behavior, nor any nuisance behavior anticipated with the approval of a solar farm.
- **Traffic** - I have found based on conversation with the owner, as well as, my personal experience determined the use would not create any increased traffic than a typical agricultural use.
- **Visual** - I have found the proposed use/existing use has limited to no visual impact on the surrounding properties, due to the existing screening, distance and proposed landscaped buffer.

CONCLUSION:

I have found that the current use/prior use/proposed use will NOT have a negative influence on values of adjoining properties. As best I can determine, the typical negative externalities (noise, hazards, odors, nuisance behavior, traffic and visual) which I have identified will be non-existent regarding a solar farm/solar facility.

Economic Impact Study File No. 0180154Solar

Owner	Charles Atkinson & Stephen Gordon				
Property Address	632 Freeland Rd				
City	Freeland	County Oakland Road	State MD	Zip Code 21053	
Client	OneEnergy Development, LLC				

COMPARABLE SITUATION:

I have researched the Baltimore County area, as well as, surrounding counties, for similar solar farms within the agricultural zoning district, in an effort to determine the likely impact the property will have on surrounding residential property values.

In doing so I was able to locate the following solar farm within the agricultural zoning district(RC-DEO) :

2800 Nixon's Farm Lane, West Friendship, Howard County, MD 21794

The property located at 2800 Nixon's Farm Lane, is considered most similar to the subject site, as it is within close proximity, surrounded by similar properties and in a similar location, with similar equipment.

This is a project by Bithenergy situated on 67 acres and includes a "10MWAC solar photovoltaic facility and a Hybrid Renewable Energy System (HRES) training facility dedicated specifically to green technology training for youths and veterans."

In researching this property we were able to find five sales in the adjacent Fox Chase Estates development, which is located approximately 600' from the solar farm. The following is a list of the properties:

	Sales Price	Sale Date	Lot Size	Living Area	Days on Market	Price/Sq. Ft. Living Area
12905 Vistaview Drive	$771,500	5/31/2013	0.92 Acre	4,198 sf	14	$183.78
12908 Vistaview Drive	$800,000	8/4/2014	0.92 Acre	4,562 sf	82	$175.36
12913 Vistaview Drive	$971,000	8/9/2014	0.99 Acre	4,914 sf	25	$197.60
12909 Vistaview Drive	$775,000	9/12/2014	0.92 Acre	2,692 sf	18	$287.89
12909 Vistaview Drive	$804,000	3/14/2017	.092 Acre	2,692 sf	61	$298.66

All of the properties were arms length transactions with conventional financing, with the exception of the second sale of 12909 Vistaview Drive, which transferred with VA financing.

For comparison to determine any impact on value, the three properties which transferred in 2014 were used.

The three properties market statistics compared to the overall market as follows:

	Average Sale Price	Median Sales Price	Average Days on Market	Median Days on Market
Fox Chase Estates 2014 Sale Statistics	$848,667	$800,000	42	25
21794 Zip Code Statistics 2014	$654,430	$650,000	70	39
Howard County Market Statistics 2014	$431,300	$389,945	58	Not Provided

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Economic Impact Study File No. 0180154Solar

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						

The sales neighborhood was compared to the zip code statistics, which included 22 sales from the area and the entire Howard County market for 2014.

The above statistics indicate the adjacent properties sold above the average and median sale prices for the zip code, as well as the Howard County market area. In addition the average and median days on market were below the zip code and Howard County market. Therefore, since the homes which sold in the Fox Chase Estates Subdivision(within 600+/- feet of solar panels) sold above the median and sales prices of the market area and below the average and median days on market there is no detrimental affect on value or marketability.

Furthermore, the sale of 12905 Vistaview Drive occurred in May of 2013, shortly after construction on the solar farm began, which was September 2012. The property sold in 14 days, indicating no effect on the marketability. 12909 Vistaview sold in September of 2014 for $775,000, the full asking price, after 18 days on the market. The property then resold in March of 2017 for $804,000. The property was listed for $800,000, therefore, selling above the asking price in 61 days. This further indicates no detrimental effect on value or marketability adjacent to the commercial solar farm.

We have also researched the Fox Chase Estates development for sales prior to construction of the adjacent solar farm, which may have also transferred after construction. These sales can be compared to the overall market for comparison. In researching a sale/resale we found 12908 Vista View Drive sold on July 28, 2010 for $740,000 (Prior to Solar Farm). The property was sold again on August 4, 2014 for $800,000 (Post Solar Farm). This sale indicates an 8.11% increase in value over the four year period or 2.03% per year. This was then be compared to the West Friendship's 21794 zip code for comparison. The 21794 zip code experienced 17 sales in 2010 with an average sales price of $721,336, a median sales price of $725,000. This was compared to the 21794 sales statistics for 2014, which indicated 28 sales with an average sales price of $705,192 and a median sales price of $707,500.

	2010 Sales	2014 Sales	% Change
Avg. Sale Price	$721,336	$705,192	-2.24%
Median Sale Price	$725,000	$707,500	-2.41%

The property located at 12908 Vista View Drive experienced a 8.11% increase in value over the four year period while the overall 21794 West Friendship area experienced a -2.24% decline in average sales price with a -2.41% decrease in median sales price. These statistical reports may be seen further in this report.

CONCLUSION:

Based on the above research and analysis we were able to conclude that there was no external obsolescence or negative impact that the solar farm had on neighboring properties. Furthermore, the sale of a home prior to the installation of the solar farm increased in value when sold after the solar farm. Not only did it increase in value, but it outperformed the market by over 10%.

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Economic Impact Study File No. 0180154Solar

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						

SUMMARY AND CONCLUSIONS:

I have found the proposed solar farm does not have a negative influence on residential property values or marketability of surrounding properties for the following reasons:

- The site is screened with an existing buffer of foliage and the proposed landscaping will further supplement the existing buffers, blocking the solar farm from the view of most neighboring properties. In addition its distance from neighboring properties creates a natural distance buffer.
- Neighborhood Environment - The subject's immediate environment is predominately residential and agricultural in character. A solar farm is not dis-similar from a typical agricultural use, such a dairy, hog or beef cattle operation and would fit the conformity to the neighborhood.
- Negative Externalities -

    1) Noise
    2) Hazards
    3) Odors
    4) Nuisance Behavior
    5) Traffic

All of these items, which typically affect property values have not been found to be present on the subject's site, subsequent to the proposed use.

Based on the above observations and analysis, I have found that the proposed solar farm located at 632 Freeland Road, does NOT have a negative influence on property values for adjoining residential and agricultural properties.

Respectfully Submitted,

David Straitman, SRA

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Photograph Addendum

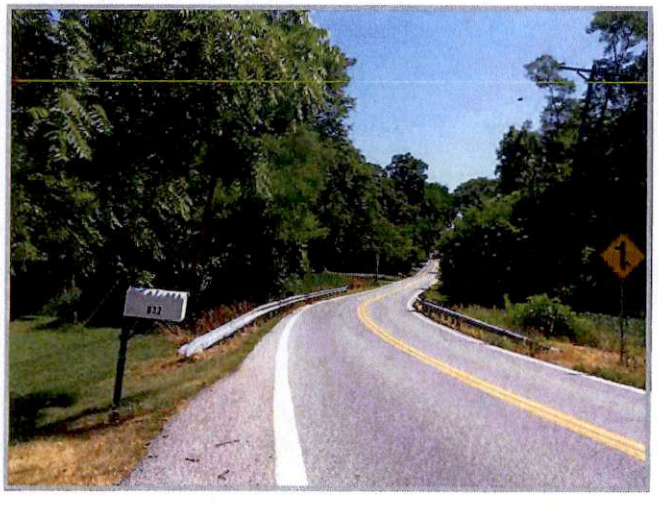
Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						



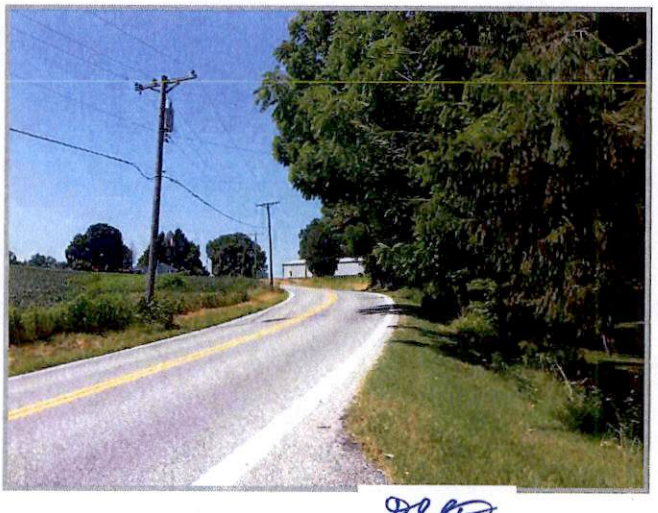
632 Freeland Road Front of Residence



632 Freeland Road Rear of Residence



Street Facing East



Street Facing

Serial# C60A5011
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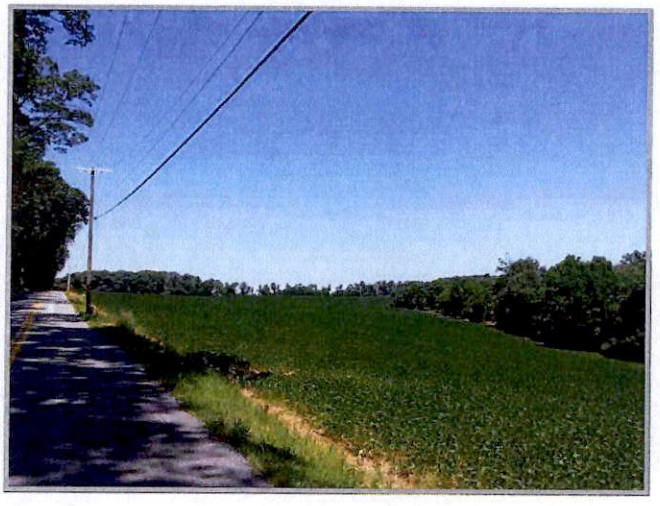
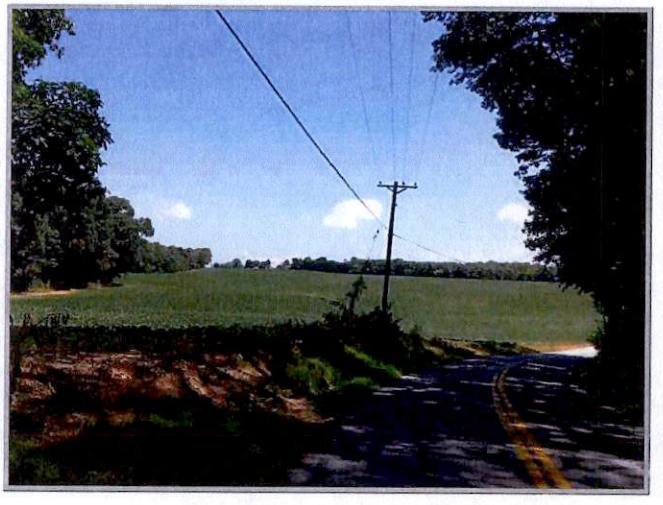
Photograph Addendum

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						



View North From Oakland Rd



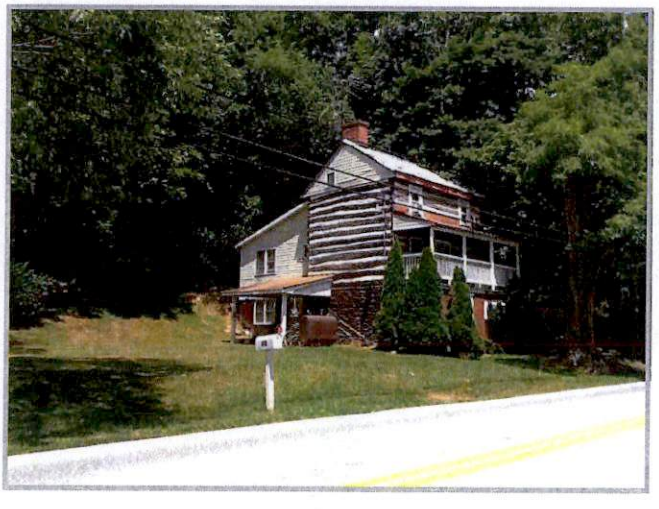
View South From Oakland Rd



View From Orwig Rd



View From 21712 Orwig Rd



Tenant House 612 Freeland Rd

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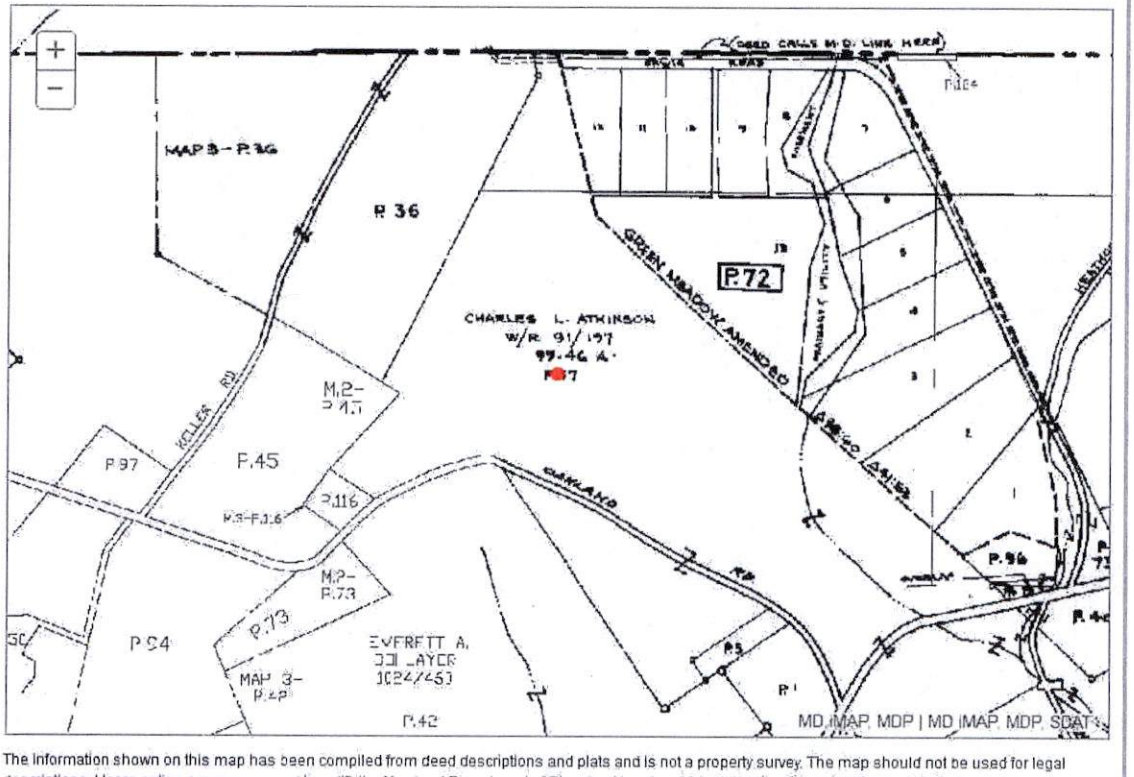
Assessor Parcel Map

Baltimore County

New Search

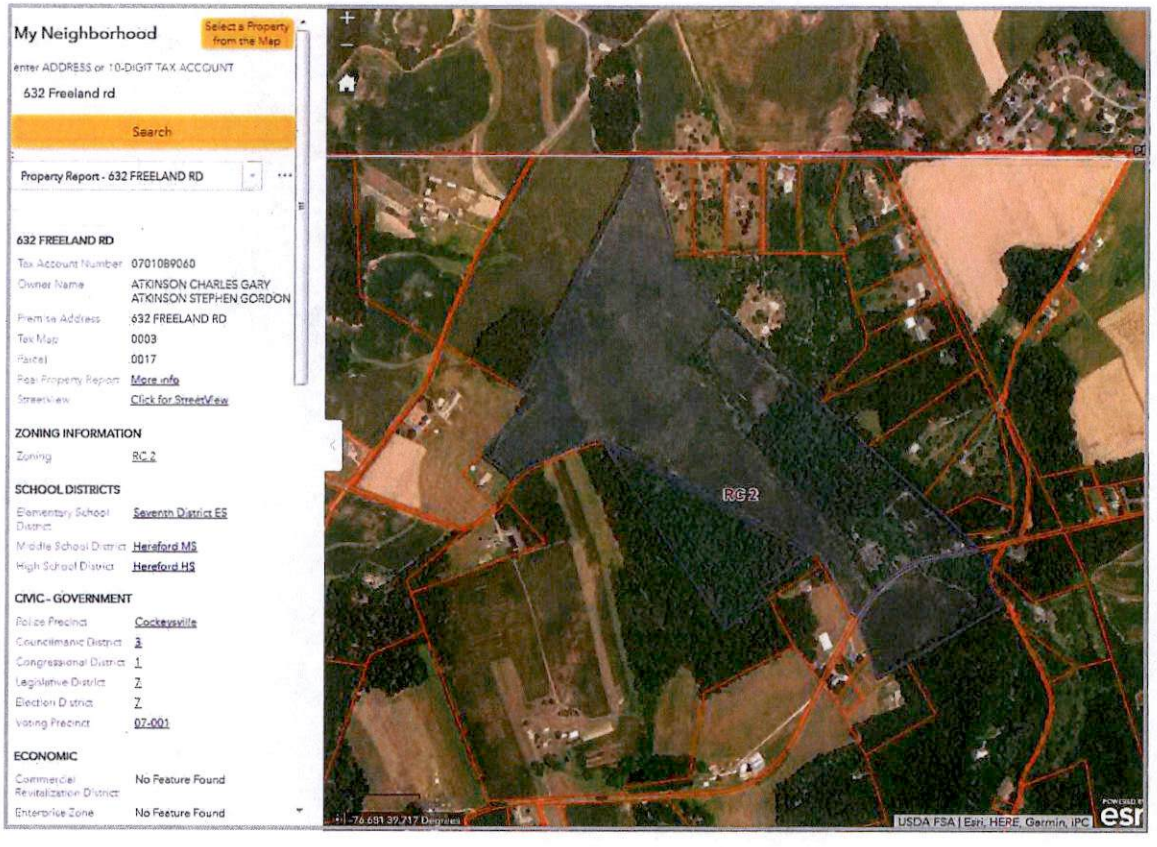
District: **07** Account Number: **0701089060**



The information shown on this map has been compiled from deed descriptions and plats and is not a property survey. The map should not be used for legal descriptions. Users noting errors are urged to notify the Maryland Department of Planning Mapping, 301 W. Preston Street, Baltimore MD 21201

If a plat for a property is needed, contact the local Land Records office where the property is located. Plats are also available online through the Maryland State Archives at www.plats.net.

Subject Zoning Map



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Subject's Public Record

Account Identifier: District - 07 Account Number - 0701089060

Owner Information

Owner Name: ATKINSON CHARLES GARY
ATKINSON STEPHEN GORDON
Use: AGRICULTURAL
Principal Residence: NO

Mailing Address: 632 FREELAND RD
FREELAND MD 21053-
Deed Reference: /26823/ 00303

Location & Structure Information

Premises Address: 632 FREELAND RD
FREELAND 21053-
Legal Description: 99.46 AC
632 FREELAND RD
4100 FT W YORK RD

Map:	Grid:	Parcel:	Sub District:	Subdivision:	Section:	Block:	Lot:	Assessment Year:	Plat No:
0003	0019	0017		0000				2017	Plat Ref:

Special Tax Areas: **Town:** NONE
Ad Valorem:
Tax Class:

Primary Structure Built	Above Grade Living Area	Finished Basement Area	Property Land Area	County Use
1892	3,900 SF	260 SF	99.4600 AC	05

Stories	Basement	Type	Exterior	Full/Half Bath	Garage	Last Major Renovation
2	YES	STANDARD UNIT	SIDING	2 full		

Value Information

	Base Value	Value As of 01/01/2017.	Phase-in Assessments As of 07/01/2017	As of 07/01/2018
Land:	126,600	126,600		
Improvements	160,300	173,500		
Total:	286,900	300,100	291,300	295,700
Preferential Land:	23,100			23,100

Transfer Information

Seller: ATKINSON CHARLES L	**Date:** 03/28/2008	**Price:** $0
Type: NON-ARMS LENGTH OTHER	**Deed1:** /26823/ 00303	**Deed2:**
Seller: ATKINSON V A AG USE 83-84	**Date:** 07/17/1968	**Price:** $0
Type: NON-ARMS LENGTH OTHER	**Deed1:** /00000/ 00197	**Deed2:**
Seller:	**Date:**	**Price:**
Type:	**Deed1:**	**Deed2:**

Exemption Information

Partial Exempt Assessments:	Class	07/01/2017	07/01/2018
County:	000	0.00	
State:	000	0.00	
Municipal:	000	0.00|0.00	0.00|0.00

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21794 Zip Code Market Statistics

Residential Stats - Analysis Report

MRIS Real Estate in Real Time

17-Jul-2018 2:53:47PM
Page 1 of 1

SOLD **22 LISTINGS**

	Price when initially entered					Price at time of sale							
	Sold Price	Subsidy	Net Price	Orig. Price	% Of	Sold Price	Subsidy	Net Price	List Price	% Of	DOMM	DOMP	Age
Low	$220,000	$0	$220,000	$149,900	77.99	$220,000	$0	$220,000	$149,900	77.99	0	0	4
High	$1,100,000	$22,500	$1,100,000	$1,175,000	146.76	$1,100,000	$22,500	$1,100,000	$1,100,000	146.76	332	444	119
Median	$650,000	$0	$650,000	$687,450	94.17	$650,000	$0	$650,000	$680,000	96.50	39	42	23
Average	$654,430	$3,498	$650,932	$696,567	94.76	$654,430	$3,498	$650,932	$676,321	97.78	70	114	36

Report Totals **Properties:** 22

	List Price:	Orig. List Price:	% of:	Sold Price:	Subsidy:	Net Price:	DOMM:	DOMP:	Age:
Low	$149,900	$149,900	77.99	$220,000	$0	$220,000	0	0	4
High	$1,100,000	$1,175,000	146.76	$1,100,000	$22,500	$1,100,000	332	444	119
Median	$680,000	$687,450	94.17	$650,000	$0	$650,000	39	42	23
Average	$676,321	$696,567	94.76	$654,430	$3,498	$650,932	70	114	36

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Information is believed to be accurate, but should not be relied upon without verification.
Accuracy of square footage, lot size, schools, and other information is not guaranteed.

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Howard County Market Statistics

Market Statistics – Detailed Report

SmartCharts

2014
Howard County, MD

Sold Summary

	2014	2013	% Change
Sold Dollar Volume	$1,497,474,759	$1,460,374,125	2.54%
Avg Sold Price	$431,300	$419,407	2.84%
Median Sold Price	$389,945	$385,000	1.28%
Units Sold	3,472	3,482	-0.29%
Avg Days on Market	58	55	5.45%
Avg List Price for Solds	$439,516	$426,082	3.15%
Avg SP to OLP Ratio	96.3%	97.1%	-0.77%
Ratio of Avg SP to Avg OLP	95.8%	96.7%	-0.86%
Attached Avg Sold Price	$299,780	$291,187	2.95%
Detached Avg Sold Price	$531,341	$519,907	2.20%
Attached Units Sold	1,500	1,530	-1.96%
Detached Units Sold	1,972	1,952	1.02%

Financing (Sold)

Assumption	1
Cash	456
Conventional	2,268
FHA	365
Other	83
Owner	4
VA	275

Days on Market (Sold)

0	142
1 to 10	814
11 to 20	437
21 to 30	320
31 to 60	646
61 to 90	394
91 to 120	262
121 to 180	247
181 to 360	175
361 to 720	30
721+	5

Notes:
- SP = Sold Price
- OLP = Original List Price
- LP = List Price (at time of sale)
- Garage/Parking Spaces are not included in Detached/Attached section totals.

Sold Detail

	Residential						Condo/Coop
	2 or Less BR		3 BR		4 or More BR		All
Price Ranges	Detached	Attached/TH	Detached	Attached/TH	Detached	Attached/TH	Attached
< $50,000	1	0	1	0	0	0	1
$50K to $99,999	3	0	5	0	0	0	36
$100K to $149,999	4	0	3	3	4	1	67
$150K to $199,999	4	9	17	30	2	2	111
$200K to $299,999	18	38	69	253	48	44	221
$300K to $399,999	8	2	185	216	198	77	120
$400K to $499,999	2	0	118	97	328	16	68
$500K to $599,999	3	0	24	37	322	13	20
$600K to $799,999	0	0	12	3	410	13	0
$800K to $999,999	0	0	1	0	126	1	0
$1M to $2,499,999	0	0	0	0	54	1	0
$2.5M to $4,999,999	0	0	0	0	2	0	0
$5,000,000+	0	0	0	0	0	0	0
Total	43	49	435	639	1,494	168	644
Avg Sold Price	$261,822	$238,470	$367,499	$327,501	$586,803	$369,674	$258,706
Prev Year - Avg Sold Price	$280,073	$245,583	$365,188	$311,402	$571,099	$354,041	$256,919
Avg Sold % Change	-6.52%	-2.90%	0.63%	5.17%	2.75%	4.42%	0.70%
Prev Year - # of Solds	37	66	433	632	1,482	193	639

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Data Source: MRIS. Statistics calculated January 06, 2015

MarketStats

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21794-2010 Zip Code Statistics

Market Statistics – Detailed Report

SmartCharts

2010
21794, West Friendship, MD

Sold Summary

	2010	2009	% Change
Sold Dollar Volume	$12,262,708	$11,120,313	10.27%
Avg Sold Price	$721,336	$741,354	-2.70%
Median Sold Price	$725,000	$700,000	3.57%
Units Sold	17	15	13.33%
Avg Days on Market	130	179	-27.37%
Avg List Price for Solds	$754,287	$768,961	-1.91%
Avg SP to OLP Ratio	92.4%	91.0%	1.63%
Ratio of Avg SP to Avg OLP	92.6%	89.0%	4.07%
Attached Avg Sold Price	$0	$0	%
Detached Avg Sold Price	$721,336	$741,354	-2.70%
Attached Units Sold	0	0	%
Detached Units Sold	17	15	13.33%

Financing (Sold)

Assumption	0
Cash	1
Conventional	14
FHA	1
Other	1
Owner	0
VA	0

Days on Market (Sold)

0	1
1 to 10	3
11 to 20	0
21 to 30	1
31 to 60	2
61 to 90	1
91 to 120	0
121 to 180	4
181 to 360	4
361 to 720	1
721+	0

Notes:
- SP = Sold Price
- OLP = Original List Price
- LP = List Price (at time of sale)
- Garage/Parking Spaces are not included in Detached/Attached section totals.

Sold Detail

	Residential						Condo/Coop
	2 or Less BR		3 BR		4 or More BR		All
Price Ranges	Detached	Attached/TH	Detached	Attached/TH	Detached	Attached/TH	Attached
< $50,000	0	0	0	0	0	0	0
$50K to $99,999	0	0	0	0	0	0	0
$100K to $149,999	0	0	0	0	0	0	0
$150K to $199,999	0	0	0	0	0	0	0
$200K to $299,999	0	0	0	0	0	0	0
$300K to $399,999	0	0	0	0	0	0	0
$400K to $499,999	0	0	0	0	1	0	0
$500K to $599,999	0	0	0	0	1	0	0
$600K to $799,999	0	0	0	0	11	0	0
$800K to $999,999	0	0	1	0	2	0	0
$1M to $2,499,999	0	0	0	0	1	0	0
$2.5M to $4,999,999	0	0	0	0	0	0	0
$5,000,000+	0	0	0	0	0	0	0
Total	0	0	1	0	16	0	0
Avg Sold Price	$0	$0	$879,000	$0	$711,482	$0	$0
Prev Year - Avg Sold Price	$0	$0	$0	$0	$741,354	$0	$0
Avg Sold % Change	0.00%	0.00%	0.00%	0.00%	-4.03%	0.00%	0.00%
Prev Year - # of Solds	0	0	0	0	15	0	0

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Data Source: MRIS. Statistics calculated October 06, 2014.

MarketStats

21794-2014 Zip Code Statistics

Market Statistics – Detailed Report

SmartCharts

2014
21794, West Friendship, MD

Sold Summary

	2014	2013	% Change
Sold Dollar Volume	$19,745,364	$14,745,000	33.91%
Avg Sold Price	$705,192	$670,227	5.22%
Median Sold Price	$707,500	$688,750	2.72%
Units Sold	28	22	27.27%
Avg Days on Market	138	104	32.69%
Avg List Price for Solds	$728,149	$687,009	5.99%
Avg SP to OLP Ratio	95.5%	95.8%	-0.29%
Ratio of Avg SP to Avg OLP	94.6%	95.7%	-1.19%
Attached Avg Sold Price	$0	$0	%
Detached Avg Sold Price	$705,192	$670,227	5.22%
Attached Units Sold	0	0	%
Detached Units Sold	28	22	27.27%

Financing (Sold)

Assumption	0
Cash	6
Conventional	17
FHA	2
Other	3
Owner	0
VA	0

Days on Market (Sold)

0	1
1 to 10	2
11 to 20	1
21 to 30	2
31 to 60	5
61 to 90	8
91 to 120	1
121 to 180	1
181 to 360	4
361 to 720	4
721+	0

Notes:
- SP = Sold Price
- OLP = Original List Price
- LP = List Price (at time of sale)
- Garage/Parking Spaces are not included in Detached/Attached section totals.

Sold Detail

	Residential						Condo/Coop
	2 or Less BR		3 BR		4 or More BR		All
Price Ranges	Detached	Attached/TH	Detached	Attached/TH	Detached	Attached/TH	Attached
< $50,000	0	0	0	0	0	0	0
$50K to $99,999	0	0	0	0	0	0	0
$100K to $149,999	0	0	0	0	0	0	0
$150K to $199,999	0	0	0	0	0	0	0
$200K to $299,999	1	0	0	0	0	0	0
$300K to $399,999	1	0	0	0	1	0	0
$400K to $499,999	0	0	1	0	3	0	0
$500K to $599,999	0	0	0	0	1	0	0
$600K to $799,999	0	0	0	0	10	0	0
$800K to $999,999	0	0	0	0	8	0	0
$1M to $2,499,999	0	0	0	0	2	0	0
$2.5M to $4,999,999	0	0	0	0	0	0	0
$5,000,000+	0	0	0	0	0	0	0
Total	2	0	1	0	25	0	0
Avg Sold Price	$277,500	$0	$404,000	$0	$751,455	$0	$0
Prev Year - Avg Sold Price	$0	$0	$448,333	$0	$705,263	$0	$0
Avg Sold % Change	0.00%	0.00%	-9.89%	0.00%	6.55%	0.00%	0.00%
Prev Year - # of Solds	0	0	3	0	19	0	0

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Data Source: MRIS. Statistics calculated January 06, 2015.

MarketStats

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Nixon Farms Solar

Nixon Farms Solar - Howard County, MD

BITHENERGY is developing a renewable energy project in Howard County, Maryland on 67 acres, known to many as Nixon Farms. This solar array is expected to be the largest in Maryland. The project includes a 10MWAC solar photovoltaic facility and a Hybrid Renewable Energy System (HRES) training facility dedicated specifically to green technology training for youths and veterans. By providing this green training we will encourage a low carbon economy, and prepare an emerging workforce for green jobs across a portfolio of diverse renewable energy technologies like wind, solar (PV and thermal), biomass, bio-gas, and geothermal technologies.

The facility will be developed as an integrated project with separate financing and ownership agreements. Additionally, the Nixon Farm HRES™ will create approximately 400-500 green construction jobs and 37 permanent positions once all phases have been completed. Solar PV generation is the most advanced component of the Nixon Farm HRES™. By fully utilizing both federal and state incentives associated with the project, the BITHENERGY team will site, permit, develop, design, finance and construct this state of the art facility. The terms of the Power Purchase Agreement (PPA) will be host-specific, and the solar design will be fully optimized for this Howard County location and its associated solar irradiance. Grid interconnection is underway and construction began Summer, 2012.

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Nixon's Farm Solar Farm

Bithenergy

HOME + ABOUT + RENEWABLE ENERGY SYSTEMS + ENERGY SERVICES NEWS BLOG CONTACT + ENGAGE OUR SERVICES



Nixon's Farm Adjacent Property Map



Serial# C60A5011
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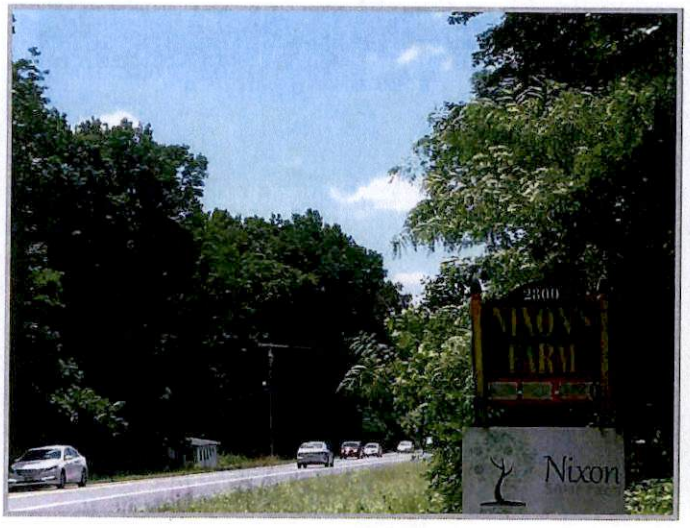
Nixon Farm Solar Panels Distance to 12908 Vistaview Dr (627 Feet)



Serial# C60A5011
suredocs.com/validate

Nixon's Farm Photograph Addendum

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						



Route 32 Entrance and Signage



Solar Farm



Solar Farm



Solar Farm

Serial# C60A5011
suredocs.com/validate

Fox Chase Sale Photograph Addendum

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						



12905 Vistaview Drive



12909 Vistaview Drive



12913 Vistaview Drive



12908 Vistaview Drive

Serial# C60A5011
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Residential Properties with Solar Fields Photograph Addendum



4111 Wards Chapel Road, Marriottsville, Baltimore County, MD 21104



655 Old Westminster Road

Photograph Addendum

Owner	Charles Atkinson & Stephen Gordon						
Property Address	632 Freeland Rd						
City	Freeland	County	Oakland Road	State	MD	Zip Code	21053
Client	OneEnergy Development, LLC						



2320 Grapes View Ct



1116 Deer Park Road

Serial# C60A5011
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Appraisers Qualifications - Page 1

David Straitman, SRA
2401 Cross Section Road
Westminster, MD 21158
410-848-4833

Certified Residential Real Estate Appraiser
Maryland License #03-20003
Pennsylvania Certified #RL139103

Licensed Real Estate Appraiser with experience in appraising all types of residential properties in the Maryland and Pennsylvania areas, as well as, small commercial properties in Maryland.

BUSINESS AND PROFESSIONAL EXPERIENCE:

Responsible for the research and preparation of appraisal reports and appraisal reviews. Appraisal assignments include: Residential, Single Family, Multi-Family, Condominium properties and Litigation Support, Small Commercial Properties. *Qualified in U.S. District Court, Anne Arundel County, Baltimore City and County, Carroll County, Frederick County Prince George's County, Howard County and York County Circuit Courts as an Expert, as well as, Carroll County Board of Zoning.*

Avalon Appraisers, LLC 2401 Cross Section Road Westminster, MD 21158	October 2003 to Present
Appraisers, Analysts and Advisors, Inc. AAA Appraisers 17 Warren Road, Suite 21A Baltimore, MD 21208	July 1993 to October 2003

EDUCATION:

B.S. Business Administration, Towson University, Major: Finance and Economics	January 1990
Designated SRA Member of the Appraisal Institute	**April 2008**

Appraisal Institute Courses:

Basic Appraisal Principles	February 1994
Basic Appraisal Procedures	February 1994
The Appraiser as Expert Witness	December 1995
Case Studies In Residential Highest and Best Use	September 1999
Residential Appraiser's Toolbox: New Tools to Meet Market	September 1999
Uniform Standards of Professional Appraisal Practice	June 1999
International Symposium – The Globalization of Real Estate	September 1999
Case Studies in Residential Highest and Best Use	September 1999
Introduction to Environmental Issues	November 2001
Narrative Report Writing	October 2002
Professional's Guide to the Uniform Residential Appraisal Report	April 2005
FHA and the New Residential Appraisal Forms	March 2006
Evaluating Residential Construction	June 2006
Business Practices and Ethics	June 2006
Valuation of Detrimental Conditions in Real Estate	July 2006
Advanced Residential Applications & Case Study	January 2007
Advanced Residential Report Writing	January 2007
Attacking and Defending an Appraisal in Litigation	July 2007
The New Residential Market Conditions Form	February 2009
Real Estate Finance Statistics and Valuation Modeling	March 2009
7-Hour National USPAP Update Course	February 2012
General Appraiser Sales Comparison Approach	March 2011
General Appraiser Market Analysis and Highest and Best Use	February 2012
General Appraiser Market Site Valuation & Cost Approach	October 2012
General Appraiser Income Approach/Part 1	February 2013
General Appraiser Income Approach/Part 2	May 2013

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Appraisers Qualifications - Page 2

General Appraiser Report Writing and Case Studies January 2014

LICENSES:

States of Maryland and Pennsylvania:

MD Certified Residential Real Estate Appraiser #30020003
PA Certified Residential Appraiser #RL139103
FHA Approved Appraiser in MD and PA

Partial List of Appraisal Clients

Southern Trust Mortgage
City of Westminster, MD
Robert Weltchek Esq.
BB&T Wealth Management
Bonnie Butler Esq.
J.P. Morgan Chase
Craig Habicht Esq.
Curtis Coon Esq.
Dawn Nee Esq.
GMAC Mortgage LLC
Adams County National Bank
PNC Bank
Michelle Ostrander Esq.
Debra Thomas Esq.
Presidential Bank
Stacie Dowling Esq.
Suellen Poland Esq.
Capital One Bank
Isaac Menasche Esq.
David Bowersox, Esq.
Bay Bank
Damian Halstad
Weisse Miller Law Offices
George Mason Mortgage
Carroll County Economic Development
Farmers and Merchants Bank

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Report Verification

This appraisal report has been electronically signed. It is as valid and legally enforceable as a wet ink signature on paper. In addition, advanced third party identify verification from Equifax has been used to ensure that the appraiser signing this report is really who they say they are. You can also verify that the salient data points of the report have not been altered in any way.

To verify the integrity of this document:

1. Visit esign.alamode.com/verify
2. Enter the Serial Number and Signer Name for this document listed below and click Verify.
3. A verification report will be generated showing the profile of the appraiser(s) who signed the report, the date and time the signature were applied, and the salient data from the report at the time of signing.
4. Verify the salient data matches the data in this report to quickly reveal if any tampering has taken place.
5. Optionally, upload the PDF version of this report to confirm it exactly matches the report when it was signed.

The report below is an example of what you would see when verifying the report.

Salient Data:

Date of Sale:	Condition:
Borrower:	Total Rooms:
Lender: OneEnergy Development, LLC	Bedrooms:
Size (Sq.Ft):	Baths:
Price Per Square Foot:	Appraiser: David Straitman, SRA
Location:	Effective Date of Value ('as of'):
Age: 126	Final Opinion of Value:

Signer 1:

David Straitman, SRA
2401 Cross Section Rd, Westminster, MD 21158-2611

Signature:
Serial #: C60A5011
Date Signed: 01/14/2019

Signer 2:

Signature:
Serial #:
Date Signed:

Form SDVERIFY2 - "TOTAL" appraisal software by a la mode, inc. - 1-800-ALAMODE

Serial# C60A5011
suredocs.com/validate

Board of Appeals

Case No: 2018-194 X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: Protestants Date: 7/24/18

Exhibit No:	Description:
✓ 1	MDE Storm water Design Guidance
✓ 2	MD Mass website - description of Targeted Ecological Areas
✓ 3	Picture from Oakland Rd.
✓ 4	Theaux M. Le Gardeur - CV
✓ 5	MDE Designated Use Class Website for prep.
✓ 6	Article - Brook Trout Declines w/ Land Cover & Temp. Changes
✓ 7	Article in Scientific Reports The Photovoltaic Heat Island Effect re: Solar Panels
KC 7/26/18 ✓ 8	CV of Ann Holmes Jones
✓ 9	7/17/18 letter from Valleys Planning Council, Inc.
✓ 10	5/26/18 Pictures of Snapping Turtle
✓ 11	632 Freeland Rd. map w/ diagram by Witness Lentz
✓ 12	Pictures from Witness Lentz re: effects of lightning
✓ 13A	7/24/18 Ltr. from Sparks - Glencoe Comm. Planning Council
✓ 13B	Rule 8 papers authorizing Witness Jones to speak
	VERIFIED BY KC DATE: 1/17/19

Board of Appeals

Case No: 2018-194X Case Name: Charles & Stephan Atkinson

Exhibit List

Party: Protestants Date: 10/9/18

Exhibit No:	Description:
✓ 14A-E	Pictures taken by Witness Lynne Jones various dates
✓ 15A-C	Pictures by Witness Jones of Freeland Road 3/29/18
✓ 16A-O	Maps Pictures
✓ 17	My neighborhood map of Atkinson prop.
✓ 18	Definition of Targeted Ecological Areas
✓ 19	Vibrant Communities Section of 2020 Master Plan
✓ 20	Sustainable Environment " "
✓ 21	SDAT website of residences surrounding Atkinson prop
✓ 22	ADC Mapbook & Scenic Routes SHA Listing
✓ ID not admitted only 23	Article - Solar Farms Threaten Birds
✓ ID only 24	Article - Impact of Solar Energy on Wildlife
✓ ID only 25	3 articles on aquatic insects & ~~neighborhood map~~
✓ 26	Neighborhood map re: streams, ponds & flood plains
FCI demonstrative purposes only 27	Pictures of animals caught in fences
	VERIFIED BY KC DATE: 1/17/19

Board of Appeals

Case No: 2018-194X Case Name: Charles Stephen Atkinson

Exhibit List

Party: Protestants Date: 10/9/18

Exhibit No:	Description:
ID only 28	Article - Pollen levels About to Soar in MD & pictures
ID only 29	Article - Danger: Solar Panels Can be Hazardous
ID only 30	Article - Toxic Chemicals in Solar Panels
ID only 31	NuCenTec document
ID 32	Heliotex Automatic Solar Panel Cleaning Systems - Does Cleaning a Panel w/ Hard Water make a difference?
ID only 33	Napa Article - Tips for Pollen Removal & Keeping Your car clean
34	Topography map of Atkinson prop.
35A	7/20/18 pic - swale on South Oakland Rd.
35B	3/29/18 pic of Proposed solar array site, opposite by dr. swale
ID only 36	Images depicting hurricane damage & solar panels
37	My Neighborhood map re: floodplain & streams & picture depicting floods & runoff's due to rainstorms of Atkinson prop. 8/31/18
ID only 38	Photos of Heathcote at Freeland Rd
	VERIFIED BY KC DATE: 1/17/19

Board of Appeals

Case No: 2018-194X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: Protestants Date: 10/8/18

Exhibit No:	Description:
✓ 39	National Flood Hazard Layer FIRMette map FEMA website
✓ 40	Pictures before & after the storm on 7/20/18 & 9/22/18
	2nd pic on page 1 marked for ID ~~#~~ only
✓ ID only 41	Picture of Simmons Road Solar Facility
✓ 42	Picture of fencing around Oregon Ridge park
✓ 43	Zoning Adv. Committee meeting notes 3/1/18
✓ 44	Section 502: Special Exceptions
✓ ID only 45	Article - Photovoltaic Heat Island Effect
✓ ID only 46	MD Dept. of Natural Resources definition of Brook Trout
✓ ID only 47	Article - Brook Trout Declines w/Land cover Temp. Changes
✓ ID only 48	Chesapeake Bay Trout Assessment 2015
✓ 49	§33-3-101, §33-3-108 & §33-3-109
✓ 50	8/1/18 Ltr. from Van Arsdale to County Council
✓ 51	2014 picture by Robert Rohe of eagle Sun Oakland #1
	VERIFIED BY KC DATE: 1/17/19

JB 10/9/18

Board of Appeals

Case No: 2018-194X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: Protestants Date: 11/27/18

Exhibit No:	Description:
✓ 52	2014 picture by Rohe of wide view of Oakland Rd.
✓ 53	2015 picture of winter sunset from Rohe deck
✓ 54	2015 picture of snow on Rohe deck
✓ 55	2010 picture summer view of tree line from Rohe driveway
✓ 56	2010 picture of stream on Rohe, Atkinson & another property
✓ 57	Rule 8 papers for North Co. Comm. Group LLC
✓ 58	USDA Websoil survey report & Pieper chart
✓ 59	USDA Websoil survey for 632 Freeland Rd.
✓ 60	USDA Web soil survey in special exception area
✓ 61	Petitioner's site plan w/ superimposed images over tillable land (site plan)
✓ 62	Chart by Pieper comparing soil types in Prot. Exh 58 & Pet. Exh 13
✓ 63	Chart by Pieper w/ Sp. Exceptions granted by ALJ for Solar Projects
✓ 64	Balto. Co. Zoning Reg. § 4F-102
✓ 65	Slide from DNR presentation on TEAs "Best of the Best"
	VERIFIED BY KC DATE: 11/28/18

Board of Appeals

Case No: 2018-194-X Case Name: Charles & Stephen Atkinson

Exhibit List

Party: Protestants Date: 11/27/18

Exhibit No:	Description:
✓ 66	Slide from DNR TEAS preferred from 2011 Preferred Preserving,
✓ 67	DNR Conservation Benefits Assessment
✓ 68	Pieper Chart info w/ Potential Alternate Comm. Solar Sites
✓ 69	Copy of Plan from Altmeyer of 6.32 Freeland w/ Slope Percentage
✓ 70	SDAT Real Prop Search: 12905 Vista View Dr. in Howard Co.
	VERIFIED BY KC DATE: 1/17/19

KC 11/28/18

MDE Maryland Department of the Environment

Stormwater Design Guidance – Solar Panel Installations

Revisions to Maryland's stormwater management regulations in 2010 require that environmental site design (ESD) be used to the maximum extent practicable (MEP) to mimic natural hydrology, reduce runoff to reflect forested wooded conditions, and minimize the impact of land development on water resources. This applies to any residential, commercial, industrial, or institutional development where more than 5,000 square feet of land area is disturbed. Consequently, stormwater management must be addressed even when permeable features like solar panel installations exceed 5,000 square feet of land disturbance.

Depending on local soil conditions and proposed imperviousness, the amount of rainfall that stormwater requirements are based on varies from 1.0 to 2.6 inches. However, addressing stormwater management does not mean that structural or micro-scale practices must be constructed to capture and treat large volumes of runoff. Using nonstructural techniques like disconnecting impervious cover reduces runoff by promoting overland filtering and infiltration. Commonly used with smaller or narrower impervious areas like driveways or open roads, the Disconnection of Non-Rooftop Runoff technique (see pp. 5.61 to 5.65 of the **2000 Maryland Stormwater Design Manual**[1]) is a low cost alternative for treating runoff in situations like rows of solar panels.

When non-rooftop disconnection is used to treat runoff, the following factors should be considered:

- The vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar panels)
- Runoff must sheet flow onto and across vegetated areas to maintain the disconnection
- Disconnections should be located on gradual slopes (≤ 5%) to maintain sheetflow. Level spreaders, terraces, or berms may be used to maintain sheetflow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Typically this maintenance is no different than other lawn or landscaped areas. However, areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction.

Depending on the layout and number of panels installed, the disconnection of non-rooftop runoff technique may address some or all of the stormwater management requirements for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. In these situations, other ESD techniques or micro-scale practices may be needed to provide stormwater management for these features.

Protestant
CBA Exhibit
1

Example 1 – Using Non-Rooftop Disconnection Where the Average Slope ≤ 5%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

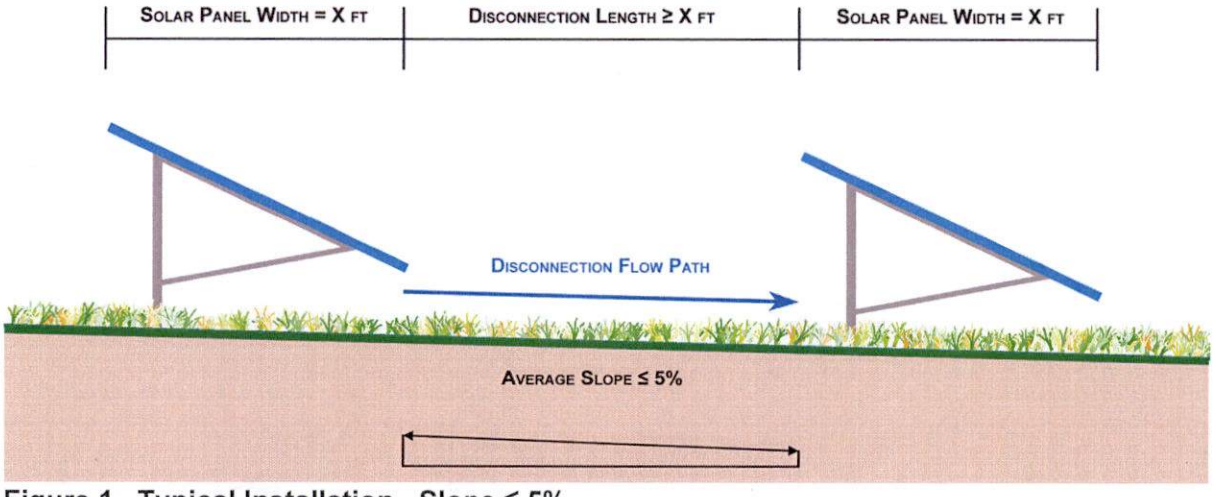


Figure 1. Typical Installation - Slope ≤ 5%

Example 2 – Using Non-Rooftop Disconnection Where the Average Slope ≥ 5% but ≤ 10%

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in Figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2-foot wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheetflow.

Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.

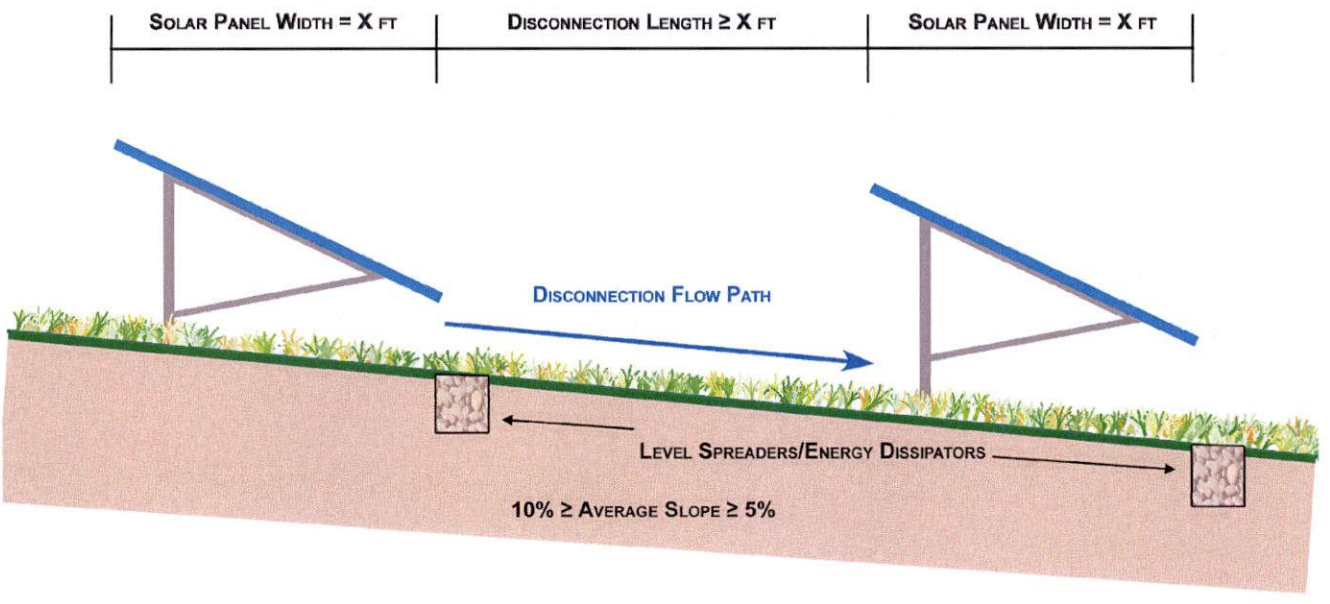


Figure 2. Typical Installation – Slope ≥ 5% but ≤ 10%

Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost-effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

Resources

[1] 2000 Maryland Stormwater Design Manual, Volumes I and II, MDE, October 2000 (http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx)

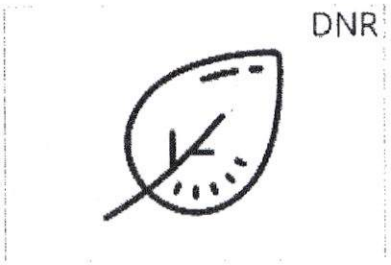
Protestant
CBA Exhibit
2

ArcGIS

Maryland Focal Areas - Targeted Ecological Areas

Overview Data Visualization

DNR



Maryland Focal Areas - Targeted Ecological Areas

Feature Layer by ArcGIS Online for Maryland

Created: Feb 9, 2016
Updated: Feb 9, 2018
View Count: 919

Authoritative

Open in Map Viewer

Open in Scene Viewer

Open in ArcGI...

Metadata

Description

This is a MD iMAP hosted service. Find more information at http://imap.maryland.gov.

Targeted Ecological Areas (TEAs) are lands and watersheds of high ecological value that have been identified as conservation priorities by the Maryland Department of Natural Resources (DNR) for natural resource protection. These areas represent the most ecologically valuable areas in the State: they are the "best of the best". TEAs are preferred for conservation funding through Stateside Program Open Space. This version updates the 2008 TEA layer. The first step in updating TEAs was to create an ecological baseline composed of several ecological databases which included updates of original databases and additional databases developed since 2008.The first component is the updated Green Infrastructure Assessment (circa 2010) which identifies large, contiguous

Details

Source: Feature Service
Size: 1 KB

Owner

ArcGIS Online for Maryland

Managed by:
mdimapdatacat...

blocks (hubs) of significant forests and wetlands and their connecting corridors. The Green Infrastructure's hub and corridor network of habitat allows plant and animal migration, reduces forest fragmentation if protected, and provides important ecosystem services, such as biodiversity, cleaning air and water, storing nutrients, and protecting areas against storm and flood damage.The rare species and wildlife habitat component identifies areas that support Rare, Threatened, and Endangered Species, rare plant and animal communities, species of Greatest Conservation Need, and wildlife concentrations.The aquatic life hotspots component identifies watersheds supporting freshwater stream ecosystems where conservation is needed to protect and restore areas of high aquatic biodiversity, Tier II regulated streams, and brook trout streams.The water quality protection component identifies sensitive lands such as forests, wetlands, and steep slopes where preservation is important for water quality.The coastal ecosystems component identifies Blue Infrastructure shoreline and watershed protection priorities. These are areas important for sustaining coastal and tidal ecosystems and also identifies land areas important for sustaining spawning and nursery areas for important commercial and recreational fisheries.The climate change adaptation component identifies areas important for sustaining wetlands ecosystems that are changing and moving landward in response to sea level rise.From the ecological baseline, areas that ranked as most important for each of the components were merged to create the Targeted Ecological Areas. Lands that were developed, as identified by the Maryland Department of Planning (2010) were removed from the TEA layer since developed lands are not preferred for Stateside Program Open Space funding. Additionally, lands that are in the 0 foot to 2 foot inundation zone based on the 2011 SLAMM (Maryland Sea-Level Affecting Marshes Model) study performed for all 16 coastal counties and Baltimore City since these areas are not preferred for Stateside Program Open Space funding.

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Land Trust, Easements, Environnment, Rural Legacy, Targeted, Ecological Areas, Conservation, Maryland, MD iMAP, DNR, ENVL, MD, Vector, Dynamic, WMS, WFS, KML

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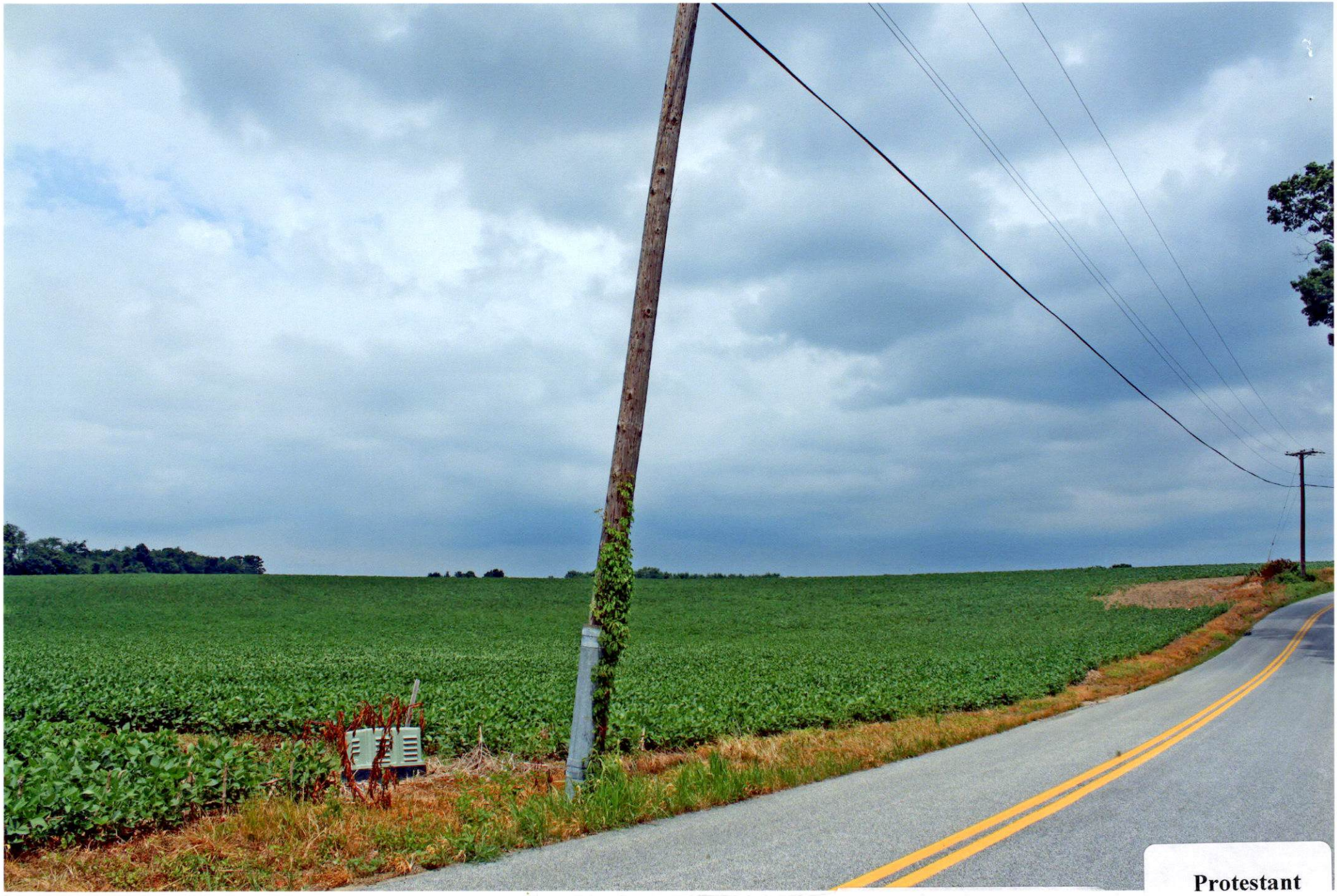

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Theaux M. Le Gardeur

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Monkton, MD 21111

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PROFILE:

Riverkeeper and Executive Director of Gunpowder Riverkeeper, a 501(c)(3) nonprofit characterized by the IRS under natural resource conservation and protection located in Monkton, MD-2010-present. As Riverkeeper and Executive Director, is the voice of the Gunpowder River and works to uphold the Clean Water Act regulations related to potential river pollution impacts such as storm drains, industrial and construction activities, agricultural influences, and residential impacts. Maryland State Sports License Agent, Maryland State Licensed Fishing Guide, Nature Tourism Partner with Maryland's Department of Natural Resources, Member of the State Water Quality Advisory Committee. Served as a member of a steering committee that focused on user group conflicts and issues within Gunpowder State Park. Testified before the Maryland State House of Representatives and the Maryland Sport Fish Advisory Committee on various resource based issues. Has provided comments on: Maryland Park Service draft of the Woody Debris Removal Policy; Acid mine drainage remediation study on the North Branch Potomac River prepared for the Maryland State Water Quality Advisory Committee in 2010; National Commission on the Deepwater Horizon Oil Spill and Offshore Oil Drilling Report; 2010 Testified before congressmen, congressional and senatorial staff members about the importance of the Magnuson Stevens Act on behalf of the Coastal Jobs Creation Act and has appeared in a Pew flier supporting the nonpartisan bill. Provided comments before National Marine Fisheries Service during scoping for Amendment 7 the NOAA Bluefin Tuna rule. Promotes stewardship of natural resources, protecting the Gunpowder River Watershed and creates awareness of invasive species statewide.

LEGAL:

As Riverkeeper has provided research and memoranda on various complex environmental issues involving; Baltimore City Watershed laws, state dam safety laws, provisions of Section 7(a) of the Endangered Species Act, local eminent domain laws, state and federal wetland laws, conservation easement laws, property laws, and local public utility rules Maryland. Aided in the litigation of cases involving violations of public notice requirements and Maryland Historic Trust laws and natural gas pipeline permitting requirements county, state and federal (Natural Gas Act) permits for an interstate natural gas pipeline crossing 81 sensitive waterways across Baltimore and Harford Counties against the Maryland Department of the Environment; *Kenneth T. Bosley Et Al vs Maryland Department of the Environment Et Al.*, Submitted *Pro se* Request for Reconsideration for FERC Certificate of Public Need and Necessity for 21.1 mile Interstate Natural Gas Pipeline Crossing 81 sensitive waterways across three counties and above a drinking water reservoir for 1.5 million Metro-Area residents. Provided Clean Water Act and NEPA research for Brief filed in the U.S. Circuit Court of Appeals District of Columbia Circuit. Attended oral arguments, prepared case strategies, reviewed and drafted motions and pleadings. Attended oral arguments and pleadings before Baltimore County Circuit Court, and the U.S. Circuit Court of Appeals District of Columbia. Aided in the litigation of cases involving violations of National Environmental Policy Act, the Federal Clean Water Act and State environmental water and natural resource (forest and fish) laws. Attended and took part in settlement negotiations to end litigation of a 401 Water Quality Certification appeal against MDE and a challenge to the Bosley vs. MDE decision by Columbia Gas before the MD Court of Special Appeals that resulted in monitoring of pipline impacts on sensitive waterways. Prepared written comments on pending Maryland Department of the Environment (MDE) permit applications and renewals. Administered compliance sweeps on rubble landfills and active quarries within watershed with third year law students that resulted in a $300,000 voluntary cleanup of the site without litigation. Prepared strategies to engage these facilities and get them back in compliance with their NPDES permit conditions. Provided environmental outreach to Maryland citizens confronting various environmental problems. Conducted extensive legal, scientific, and policy research regarding Maryland fishing regulations. Prepared research memoranda and compiled comprehensive lists of relevant state laws and regulations pertaining to protecting the Gunpowder River watershed.

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EMPLOYMENT:

Riverkeeper and Executive Director of Gunpowder Riverkeeper, 2010-present. A 501(c)(3) nonprofit that protects a 450 square mile watershed, the 53 miles length of the Gunpowder River and 217 miles of tributaries in five counties.

Owner, Backwater Angler, Monkton, MD-2001-present. Responsible for all operations; staffing (4 guides and 4 staff members) and bookkeeping related to day to day operations of specialty fly fishing retail business and guide service.

EDUCATION:

University of South Alabama, Mobile, Alabama —1996 B.S. in Marine Science; Chemistry Minor

PUBLICATIONS:

Enzymatic Browning and Its Prevention, ACS 60, Edited by Chang Y. Lee and John R.Whitaker ISBN13: 9780841232495/ ISBN10: 0841232490 Implications of the Phylogenetic Distribution of Polyphenol Oxidase in Plants; T. D. Sherman, T. Le Gardeur, and A.R. Lax

POSTERS:

Didymo Infestation in Maryland USA: A State Agency's Reactions Responses and Results. International Didymo Conference 2013, Providence, RI; Ronald J. Klauda, Katherine V. Hanna and Theaux M. Le Gardeur

NGO BOARD POSITIONS:

Serves as a Board Member of the Sparks Glencoe Community Planning Council, (600 members) where he reports and acts on resource issues related to zoning and planning in Baltimore County. Serves as a founding board member for Waterkeeper's Chesapeake that coordinates advocacy, outreach and among 18 Waterkeeper Alliance member organizations in the Chesapeake Bay Region. Former board member and former Gunpowder Resource Chair of Maryland Trout Unlimited, (800 members).

ADVISORY POSITIONS:

Participated in EPA Phase II Watershed Implementation Plan/Total Maximum Daily Load planning in a three county region including Baltimore, Harford and Carroll Counties in Maryland. Produced angler polling and outreach materials that were instrumental in Maryland passing and implementing first state – wide ban on felt soled wading shoes in the United States to contain the spread of invasive algae Didymo. Has served on the Maryland State Water Quality Advisory Committee as a Public Interest member since 2012.

AWARDS:

2010 Maryland Department of Natural Resources Conservation Award for Outstanding Service in the Conservation of Maryland's Outdoors
2011 Executive Citation from Baltimore County Executive for Protecting and Safeguarding Natural Resources in Baltimore County
2011 Resolution from Baltimore County Council for distinguished and dedicated service with the Maryland Department of Natural Resources
2011 Regional Elliot Donnelly Award for Conservation from Maryland Trout Unlimited

APPEARANCES:

Led a panel discussion on Invasive Species at the WATERKEEPER® Alliance Annual Conference in Chicago, IL in 2011. Led a panel discussion on Containing the Encroachment of Invasive Species at the joint WATERKEEPER® Alliance and River Network Annual Conference in Portland, OR in 2012. Led a panel discussion on Invasive Species as a Threat or Opportunity at the WATERKEEPER® Alliance Annual Conference in Pine Mountain, GA in 2013.

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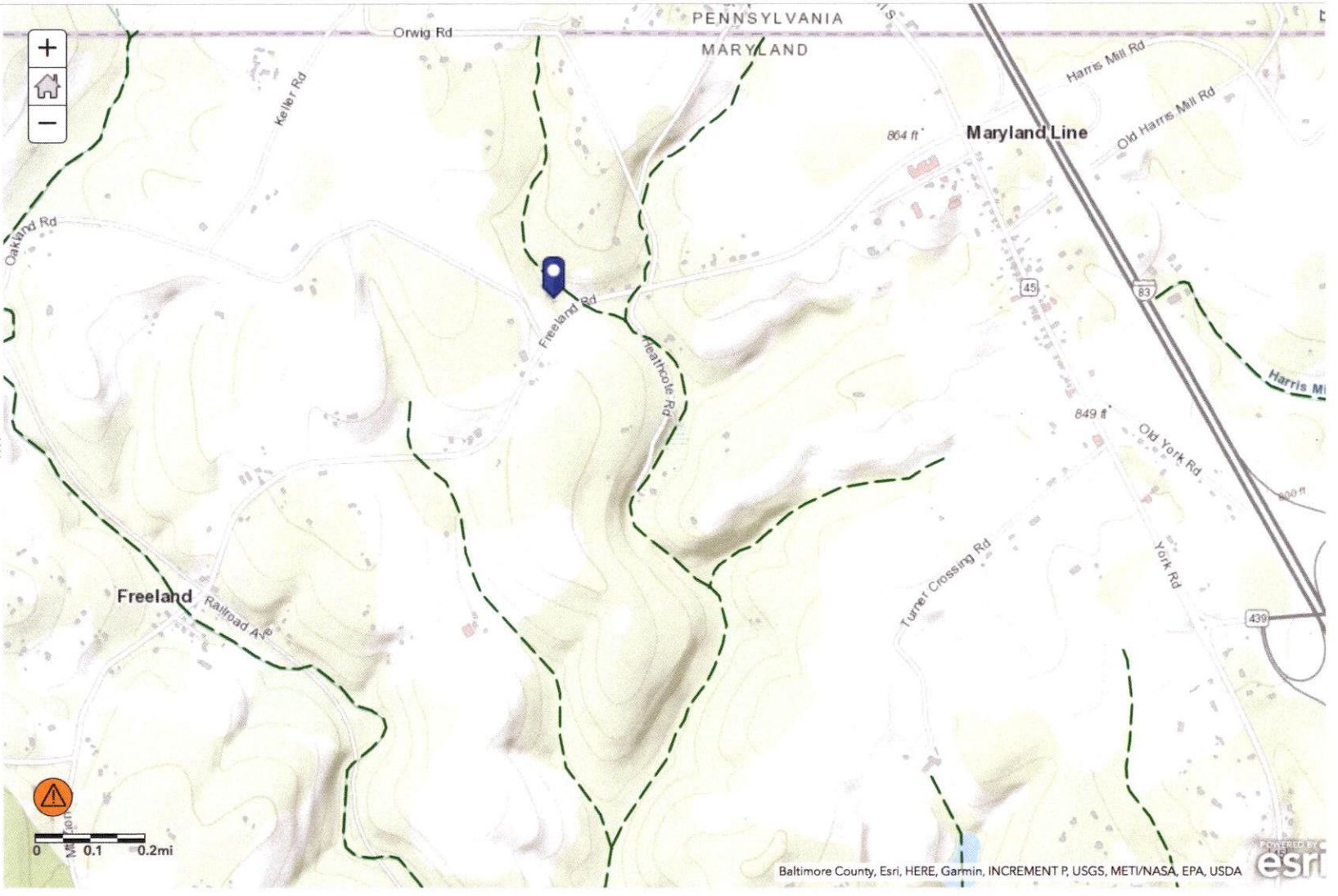

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[Article]

Brook Trout Declines with Land Cover and Temperature Changes in Maryland

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Abstract.—We examined the influence of landscape alteration and in situ stream habitat variables on brook trout *Salvelinus fontinalis* by using a landscape-scale, space-for-time substitution analysis and a smaller data set that tracked long-term changes in land use over time. Forested land cover within a catchment was the overall best landscape-scale predictor of brook trout occurrence at a given site; measures of impervious land cover and urbanization were also important predictors. Brook trout were almost never found in watersheds where impervious land cover exceeded 4%, as assessed from the 2001 National Land Cover Dataset (2001 NLCD); the single exception was in a stream that displayed consistently low water temperatures. Landscape-scale analyses indicated that increases in water temperature and erosion were associated with increasing percentages of urbanization and imperviousness and decreasing percentage of forested land cover. Three of six brook trout populations that were followed over time were extirpated within the last 15 years (between 1990 and 2005), coinciding with increases in urbanization and impervious land cover. At these sites, water temperatures were substantially greater than at the three sites with extant brook trout. Land use amounts derived from high-resolution aerial photography showed substantially greater amounts of urbanization and particularly impervious land cover than did amounts derived from the 2001 NLCD. The differences in measured land cover between imagery types warrant caution when stating upper threshold limits of land cover, because use of imagery methods interchangeably may produce inconsistent results. Our findings suggest that brook trout are very sensitive to landscape alterations in Maryland and disappear at low levels of impervious land cover regardless of the specific mechanism involved.

Populations near the periphery of a species' geographic distribution may be particularly sensitive to relatively minor anthropogenic perturbations. Brook trout *Salvelinus fontinalis* in the Piedmont physiographic province of Maryland are near the southeastern edge of the species' native distribution. Water temperature is vitally important (Meisner 1990; Raleigh 1982), because brook trout appear to only occupy streams with summer temperatures that remain less than 24°C and they prefer much cooler streams (MacCrimmon and Campbell 1969). In addition, brook trout are found primarily in streams with high-quality physical habitat and limited amounts of silt deposition (Raleigh 1982; Argent and Flebbe 1999; Curry and MacNeill 2004), acidity (Baker and Christensen 1991; Carline et al. 1994), and other anthropogenic stressors.

Declines in brook trout distribution and abundance have frequently been attributed to the degradation of streams' physical and chemical habitat conditions resulting from landscape alterations, such as forest clearing and agriculture. MacCrimmon and Campbell (1969) attributed reductions in the original range of brook trout through the late 1960s to pollution, siltation, and stream warming associated with logging. Hudy et al. (2005) cited agriculture as the most widely

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distributed factor causing negative effects on brook trout across the eastern range of the species. Booth et al. (2002) found that forest cover loss was the most important factor degrading streams and that low levels of development and forest clearing are sufficient to substantially alter hydrological and biological stream conditions.

Recent brook trout declines and extirpations from many central Maryland streams appear to be correlated with relatively minor amounts (<2%) of total impervious land cover (Boward et al. 1999; Morgan et al. 2004) within a watershed. Impervious land cover is frequently used as an indicator of human disturbance (primarily as related to urbanization) and is correlated with increases in stream temperature (Klein 1979; Galli 1991; Schueler 1994), sediment (Wolman and Schick 1967; Fox 1974; Swarts et al. 1978), and habitat instability (May et al. 1997; Booth and Jackson 1997) relative to streams in undeveloped areas.

Threshold values at which impervious land cover negatively affects stream biota have been widely reported. Total impervious cover of 10–15% in a stream catchment has most often been reported as the threshold for maintaining biological integrity (Klein 1979; Luchetti and Furstenberg 1993; Wang et al. 2001). According to Schueler (1994), declines in spawning success of brown trout *Salmo trutta* were evident above 10% total impervious land cover in a catchment. However, certain sensitive biota may be eradicated from streams when total impervious land cover exceeds 5% (Yoder et al. 2000; Angermeier et al. 2004; Southerland et al. 2005) and possibly when impervious cover is as low as 3% (Booth and Jackson 1997). Populations living near the edges of a species' geographic distribution may be affected at even lower levels of human disturbance. Overall, correlations between stream ecological conditions and imperviousness are likely to be region, watershed, and species specific and may depend on other landscape factors, such as soil type and forested land cover (Booth et al. 2002).

Correlations between ecological conditions and landscape alterations typically employ spatial analyses rather than assessing changes over time. Although such space-for-time substitutions identify probable patterns, long-term monitoring of brook trout numbers and changes in landscape factors would build a strong case for the progressive effects of landscape disturbance.

The Maryland Department of Natural Resources (MDDNR) Fisheries Service has collected quantitative data on brook trout distribution and abundance for over 30 years (Stinefelt et al. 1985). During this time, brook trout numbers have declined precipitously in many streams and the species has disappeared completely from several streams in the rapidly developing Baltimore metropolitan area. Our goals were to (1) determine whether brook trout declines and disappearance over time in several Baltimore-area streams were correlated with landscape alterations and (2) compare results from space-for-time substitutions with temporal results as brook trout numbers declined.

Methods

Analysis of temporal trends.—We analyzed temporal trends in brook trout density within six streams in the Baltimore metropolitan area by using data from the MDDNR Fisheries Service. The streams included Baisman, Goodwin, Timber, and Red runs; Sawmill Branch; and Stillwater Creek. All are situated in the eastern Piedmont and have the same general underlying geology (metamorphosed clastic sedimentary rocks; McCartan et al. 1998).

Brook trout sampling in the six streams occurred as early as 1972, and all streams were sampled during 2005. However, sampling years varied substantially among streams. All temporal trend sites were sampled for brook trout at least nine times over the last 35 years. Brook trout were collected by backpack electrofishing, but differences in the number of electrofishing passes over the 30 years of sampling prompted us to use only the first electrofishing pass to allow data comparability. Section length and average stream width were measured at each site to determine brook trout density.

Using ArcMap 9.1 software (ESRI 2005), we hand digitized the catchment upstream from each sampling site based on U.S. Geological Survey (USGS) quarter quad topographic lines. Aerial photographs for the six stream catchments were acquired to match as closely as possible to sampling periods. Sources for aerial photography included the MDDNR, Maryland Department of Planning, Baltimore County Office of Planning, Baltimore County Natural Resources Conservation Service, and purchases from private companies. All of the aerial photographs were of sufficient resolution to allow discrimination among landscape features, such as roads, parking lots, driveways, rooftops, farm fields, and forests.

After the georeferencing of each aerial photograph, the catchment boundary was overlaid and forest, agricultural areas, developed areas, and specific impervious features were hand digitized within the catchment boundaries and within a 100-m buffer surrounding all streams in the catchment. For all years with available aerial photographs, the percentages of land area consisting of agriculture, forest, development, and impervious features were calculated from the hand-digitized information for the stream buffer and for the entire catchment.

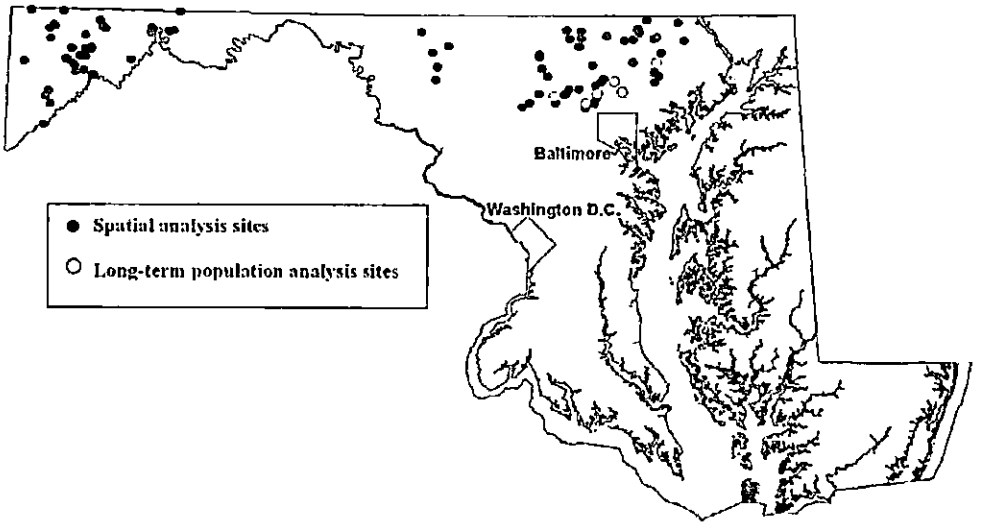

FIGURE 1.—Map of site locations used for long-term population analysis (open circles) and spatial analysis (shaded circles) of Maryland brook trout populations.

Satellite-derived land cover (based on 30-m pixel summaries) for all catchments was calculated from the 2001 National Land Cover Dataset (2001 NLCD; Homer et al. 2007). The 2001 NLCD provided an opportunity to compare land cover results estimated from high-resolution aerial photographs with estimates from the 30-m-resolution satellite data. Land cover percentage estimates for temporal trend sites reported in the Results are from aerial photos unless otherwise specified.

In situ habitat data were collected only during 2005 at five of the six streams for which temporal trend data existed; Sawmill Branch was excluded because continuous temperature data were not available. Habitat characteristics were evaluated using Maryland Biological Stream Survey (MBSS) protocols (Kazyak 2001) and included continuous temperature, site temperature coincident with brook trout sampling, riffle embeddedness, bank erosion, instream habitat structure, and pool and riffle quality. During July through August, continuous stream water temperatures were recorded every 20 min by use of Hobo temperature loggers. Temperature logger data were summarized by calculating the mean, maximum, mean average daily, and mean maximum daily temperatures and the proportion of readings exceeding 20, 22, and 24°C. The percentage of riffle habitat embedded with fine sediment (riffle embeddedness) was recorded based on a visual estimation of the percentage of gravel and larger substrates that were surrounded by fine sediment. Instream habitat structure (scale = 0–20), pool quality (0–20), riffle quality (0–20), and eroded bank area were rated by experienced MBSS personnel using a well-defined visual assessment protocol that included extensive quality controls (see Kazyak [2001] for a detailed description of the quality control procedures). Eroded bank area (hereafter, erosion) was estimated based on the linear extent and average height of both banks (left and right) that were eroded within a 75-m section of stream.

Analysis of spatial trends.—Data were examined for potential spatial trends and a space-for-time substitution using a total of 286 sites (Figure 1). These data represent one-time, unrepeated samples that were drawn from a subset of the 1995–2004 MBSS data. Sites were separated into two groups: 151 sites where brook trout were collected and where no known brook trout stocking event had occurred within the previous 35 years; and 135 sites where brook trout were expected to occur but nevertheless were absent. The sites where brook trout were expected to occur were identified using a hierarchical screening approach (Stranko et al. 2005) to determine suitable brook trout habitat conditions based on nine stream variables that are not typically affected by human influences: major river basin, physiography, catchment size, altitude, stream gradient, dissolved organic carbon, stream width, thalweg depth, and discharge. Catchment size was determined from the hand-digitized catchments for each site, whereas site altitude was taken from USGS topographic maps. Stream gradient, dissolved organic carbon, stream width, thalweg depth, and discharge were calculated based on measurements taken concurrently with brook trout sampling during summer base flow conditions. Stream gradient was measured over 75 m. Dissolved organic carbon was based on a grab

TABLE 1.—Land cover percentages determined by hand digitization of high-resolution aerial photographs (photo) or derived from 30-m-resolution satellite data (satellite; 2001 National Land Cover Dataset; Homer et al. 2007) for six Maryland streams. Aerial photographs from 2001 were not available; therefore, estimates from the years closest to 2001 were used.

	Forest		Agriculture		Developed		Impervious	
Stream	Photo	Satellite	Photo	Satellite	Photo	Satellite	Photo	Satellite
Goodwin Run[a]	62	65	0	0	38	34	25	18
Baisman Run[b]	76	75	14	23	10	1	4	<1
Timber Run[c]	73	75	17	25	10	1	3	<1
Sawmill Branch[d]	55	56	9	14	36	30	6	1
Red Run[d]	48	53	8	10	44	37	10	5
Stillwater Creek[d]	23	19	7	16	69	64	41	14

[a] Aerial photographs were from 1999.
[b] Aerial photographs were from 2000.
[c] Aerial photographs were from 2002.
[d] Aerial photographs were from 1998.

sample of water that was sent to the laboratory for analysis. Stream width and thalweg depth were averages of four wetted-extent measurements taken at 25-m intervals throughout the 75-m-long site. Discharge was calculated using the USGS method (Rantz 1982).

For all 286 spatial trend sites, forested, agricultural, developed, and impervious land cover percentages were extracted from the 2001 NLCD. Land cover estimates were determined for a 100-m buffer along all streams within each catchment as well as for the entire catchment. Due to the large number of sites in the spatial trend data set, we could not hand digitize the aerial photographs but instead relied on the 2001 NLCD. In situ habitat variables were available for 116 of the 286 spatial trend sites: 81 sites where brook trout were present and 35 sites where brook trout were expected but absent. Habitat information was collected as described for temporal trends.

Statistical analyses were conducted using all sites for which data were available (286 sites for landscape data; 116 sites for in situ habitat data). We used nonmetric multidimensional scaling (NMS) to explore correlations between brook trout presence and landscape or in situ variables. Logistic regression was used to determine the best predictors of brook trout presence from land use data.

Results

The percentages of forested, agricultural, developed, and impervious land cover estimated from the satellite-based 2001 NLCD were different from those estimated using high-resolution aerial photography (Table 1). Forested land cover estimates displayed the greatest similarity between the two methods. Agriculture estimates were consistently higher and developed estimates were consistently lower for aerial photography than for the 2001 NLCD; estimates differed by as much as 9%. The most dramatic disparity between estimates from the two methods was observed for impervious land cover. Satellite-derived estimates were consistently lower than the aerial photograph-derived estimates; at four of six sites, impervious land cover estimates based on the 2001 NLCD were not more than one-third of the hand-drawn estimates from aerial photographs. Within Timber Run, Baisman Run, and Sawmill Branch, catchment features such as houses, driveways, and roads were obvious on aerial photographs and accounted for as much as 6% impervious land cover, but little to no developed or impervious land cover (1% or less) was estimated from the 2001 NLCD. Developed and impervious land cover percentages were highly correlated ($r = 0.96$ from the 2001 NLCD), but results for both land use measures are included here because impervious features were often present in areas where land cover was predominately agriculture or forest; thus, both developed and impervious land cover percentages were important in analyses.

Space-for-Time Substitution Analysis

Our landscape-scale analyses showed that brook trout occurred in areas of low stream temperature, low erosion, high forestation, low agriculture, and low impervious land cover (Figure 2). Axis 1 of the NMS ordination of habitat variables represented a disturbance gradient running from forest ($r = -0.41$) to human-altered attributes, such as the proportion of stream temperature readings exceeding 20°C ($r = 0.90$), mean stream temperature ($r = 0.85$), and maximum stream temperature ($r = 0.83$). Other variables that were significantly associated with axis 1 included stream temperatures exceeding 22°C ($r = 0.69$) and impervious land cover ($r = 0.50$). Axis 2 formed a land use gradient running from agricultural ($r = -0.83$) to forested ($r = 0.84$) sites. Correlations with NMS axes

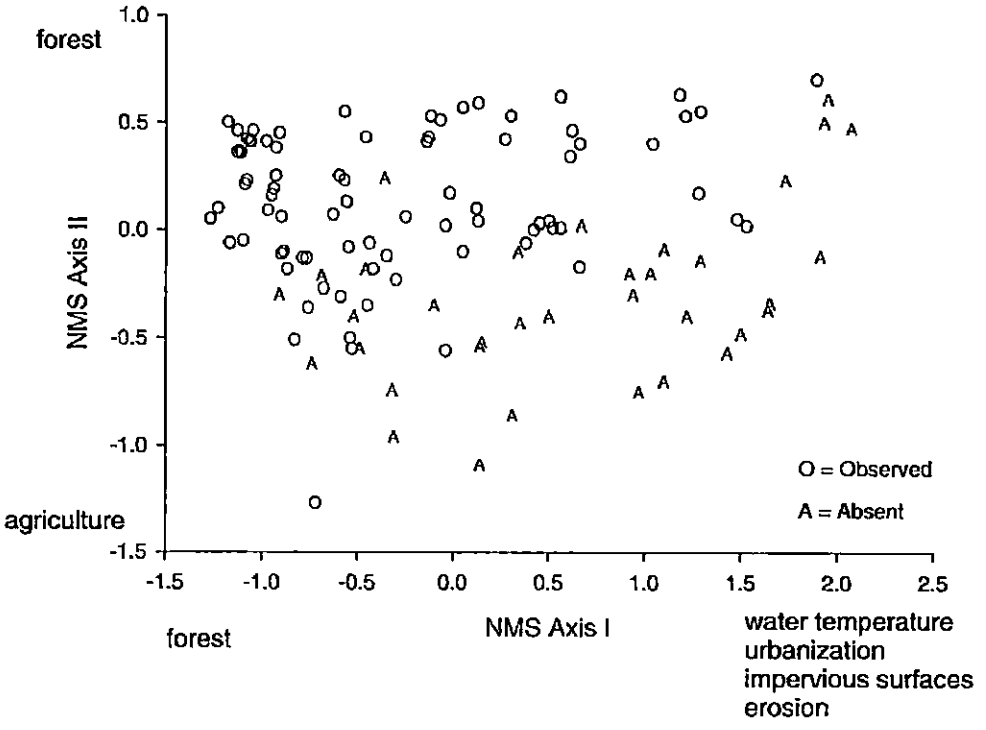

FIGURE 2.—Nonmetric multidimensional scaling (NMS) ordination of habitat variables at sites in Maryland where brook trout were either observed (O) or absent but predicted to be present (A). Habitat variables that were significantly associated with axis scores are listed by each axis.

were slightly weaker for land use within the stream buffer than for land use in the entire catchment.

Lack of disturbed land cover substantially influenced the likelihood of brook trout presence. Brook trout were never observed in streams with catchments exceeding 4% impervious land cover in the 2001 NLCD (Figure 3). For every 1% increase in impervious land cover within a catchment, the odds of brook trout presence decreased by 0.599; brook trout were predicted to be absent from watersheds where impervious cover exceeded 3.3% (logistic regression: intercept = 1.689, estimate = −0.513, $P = 0.002$, odds ratio confidence interval = 0.43–0.83). The best-competing logistic regression models for predicting brook trout presence from land use data always included forested cover in the catchment and either developed land cover in the stream buffer or impervious land cover in the catchment.

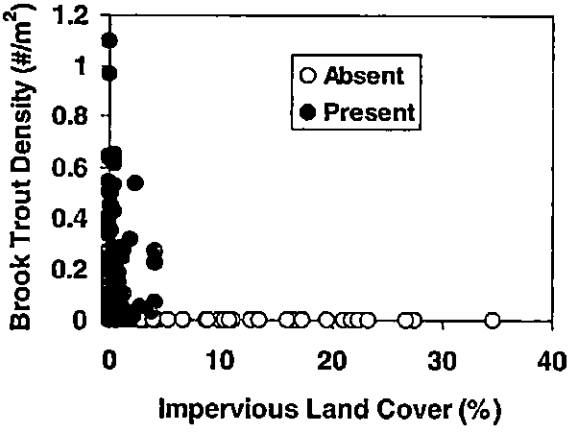

FIGURE 3.—Relationship between brook trout density (fish/m^2) and percentage of impervious land cover in Maryland stream catchments where the species was present and sites where the species was expected but absent.

Temporal Data

Although we observed substantial variability in brook trout density among the six temporal sites (Figure 4), the trend at each site was a decrease in brook trout density as forested land cover decreased and impervious land cover increased. Correlations between agricultural land cover and brook trout density over time could not be examined because agriculture was less than 30% at all sites and all years and either decreased or stayed the same at all sites over time.

Based on estimates taken from aerial photographs, forested land cover coincident with brook trout disappearances ranged from 50% in Red Run to 73% in Timber Run; brook trout were present in three of the streams where forested land cover was less than 60% (Sawmill Branch, Red Run, and Stillwater Creek). The

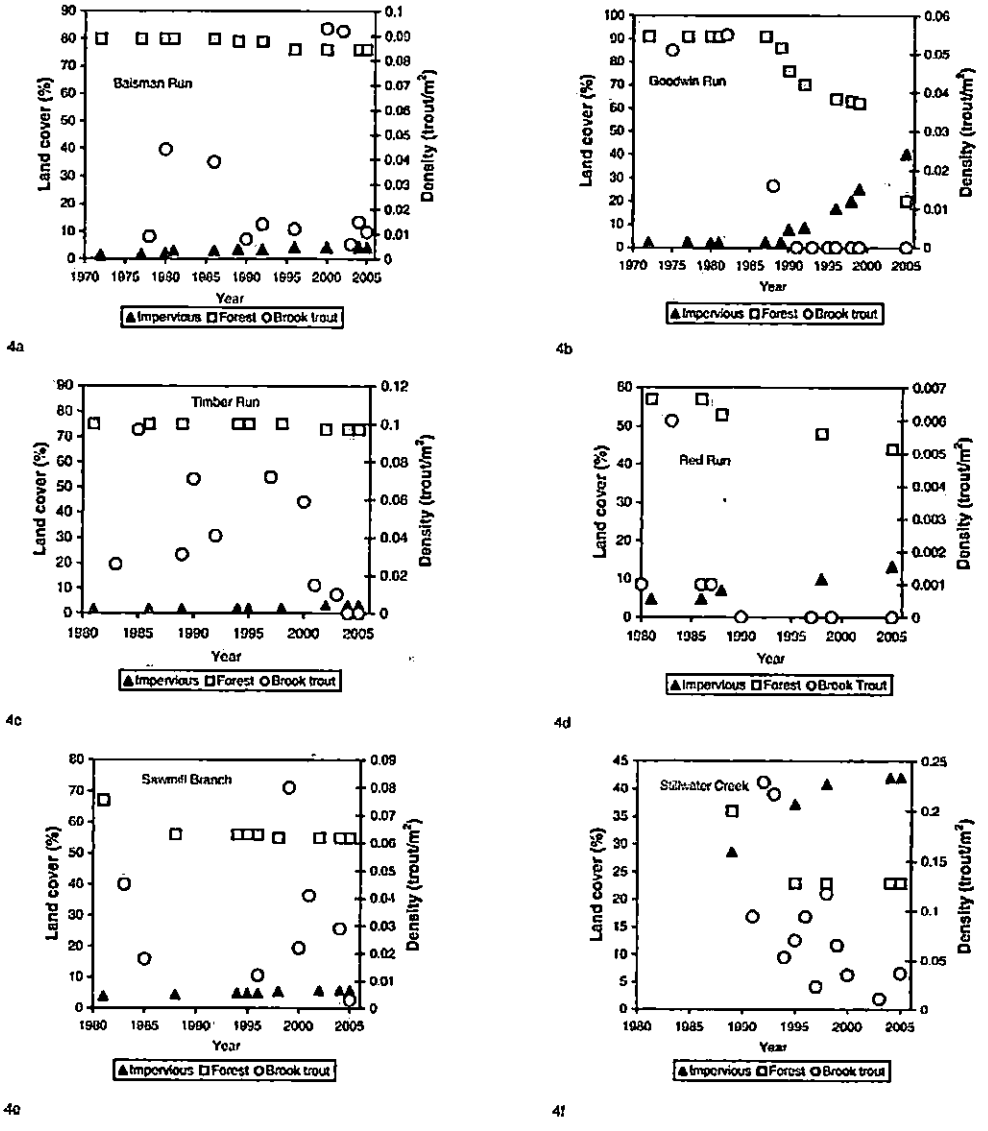

FIGURE 4.—Brook trout density (fish/m^2; open circles) in relation to forested (gray squares) and impervious (black triangles) land cover percentages over time in six Maryland streams: (a) Baisman Run, (b) Goodwin Run, (c) Red Run, (d) Timber Run, (e) Sawmill Branch, and (f) Stillwater Creek.

disappearance of brook trout from three of the streams analyzed for temporal trends was coincident with relatively low levels of impervious land cover (as little as 3% in Timber Run during 2004 and as much as 8% in Goodwin Run during 1990). Brook trout remained at relatively low densities in Sawmill Branch (0.003 fish/m^2), where impervious land cover was 6%, and in Baisman Run (0.005 fish/m^2), where impervious land cover was 4%.

The disappearance of brook trout at low percentages of impervious land cover did not occur in Stillwater Creek (Carroll County). Although density declined over time in Stillwater Creek, brook trout persisted despite impervious land cover percentage estimates in excess of 40% (as estimated from aerial photography). Moreover, forested land cover has been less than 25% since 1995. Based on the extensive spatial and temporal data examined by MDDNR in the Piedmont and Highlands regions (over 1,500 streams sampled), no other Maryland stream has higher amounts of urbanization while still retaining a native population of brook trout. Additionally, very few other streams retained brook trout when forested land cover was less than 25%.

Temperature was the only habitat variable that differed between temporal trend sites with extant brook trout and those where brook trout were extirpated (Table 2). All temperature measures taken at sites with

TABLE 2.—Land cover percentages determined by hand digitization of high-resolution aerial photographs and values of in situ habitat variables measured in 2005 for six Maryland streams (asterisks indicate streams with extant brook trout populations; brook trout were extirpated from the remaining streams). Continuous temperature data were not available for Sawmill Branch.

Variable	Goodwin Run	Baisman Run*	Red Run	Timber Run	Sawmill Branch*	Stillwater Creek*
Forested land cover (%)	20	76	44	73	55	23
Agricultural land cover (%)	0	14	4	17	9	5
Developed land cover (%)	80	10	52	10	36	72
Impervious land cover (%)	40.0	4.0	13.0	3.0	6.0	42.0
Instream habitat (scale of 0–20)	14	18	15	16	15	16
Erosion (m^2)	38	0	28	72	17	70
Pool quality (0–20)	11	16	15	14	8	10
Riffle quality (0–20)	13	12	13	14	11	12
Riffle embeddedness (%)	35	15	30	25	30	20
Proportion of temperatures > 20°C	0.424	<0.001	0.758	0.573	-	0.011
Proportion of temperatures > 22°C	0.088	0.000	0.292	0.206	-	0.002
Proportion of temperatures > 24°C	0.003	0.000	0.043	0.052	-	<0.001
Mean temperature (°C)	20.0	15.7	21.0	20.2	-	16.2
Maximum temperature (°C)	26.0	20.1	25.4	26.8	-	24.9
Mean average daily temperature (°C)	20.0	15.7	21.0	20.2	-	16.2
Mean maximum daily temperature (°C)	21.1	16.2	22.9	22.0	-	17.7

extant brook trout were substantially lower than those at sites where brook trout were extirpated. In the two streams with continuous temperature data and extant brook trout in 2005, the proportion of summer temperatures exceeding 20°C was 0.011 or less, whereas the three streams without brook trout had much higher proportions (0.424–0.758). None of the other in situ habitat variables measured during 2005 at the temporal trend sites showed any discernable pattern related to the presence or absence of brook trout.

Discussion

Our findings support the idea that landscape-scale factors can substantially influence brook trout distributions (Wiley et al. 1997; Bulger et al. 2000; Booth et al. 2002; Kocovsky and Carline 2006). Although brook trout could be found at all levels of forested cover, most sites with relatively large forested proportions in their catchments had high numbers of brook trout, whereas few sites with little or no forest maintained brook trout. Brook trout occurrence and density at landscape scales exhibited strong negative correlations with impervious land cover but the correlations with forested land cover were even stronger. However, with one exception, brook trout were not found at sites with more than 4% impervious cover in the watershed.

Forest clearing and urbanization often result in increased water temperatures (Klein 1979; Rishel et al. 1982; Beschta and Taylor 1988; Johnson and Jones 2000; Paul and Meyer 2001), which have negative effects on brook trout (MacCrimmon and Campbell 1969; McCormick et al. 1972; Magoulick and Wilzbach 1998). Although our analyses cannot determine specific mechanisms of stream change, increased water temperatures were strongly associated with human alteration of land cover and increases in the impervious land cover percentage. Stillwater Creek, the only watershed where brook trout continued to persist despite increases in human development, maintained stream temperatures similar to heavily forested sites. We speculate that the substantial inputs of groundwater due to abundant surrounding wetlands in the catchment mediated the stream temperature increases typically associated with increases in the amount of area covered by impervious surfaces. Groundwater seepage has been implicated in similar situations elsewhere (Wiley et al. 1997; Steffy et al. 2004).

Coupling a large-scale, space-for-time substitution analysis with in-depth, long-term monitoring allowed us to more rigorously identify the importance of land conversion for brook trout populations. Large-scale analyses provided correlational evidence of factors influencing brook trout. However, by examining a subset of populations through time, we were able to better document land use levels at which brook trout were affected and to determine why Stillwater Creek brook trout remained resilient to human development in the watershed.

Our analyses indicate an upper limit of landscape modification: brook trout no longer occur in catchments exceeding 4% impervious land cover in the 2001 NLCD. Stillwater Creek is the only population to exist in a catchment exceeding the threshold. We acknowledge that certain factors (e.g., a modified hydrologic regime; Booth et al. 2002) other than those examined here may also be correlated with this relatively minor degree of landscape alteration and with brook trout loss. However, regardless of the exact mechanisms eliminating brook trout above this upper limit, the pattern appears to be real and it implies extreme

sensitivity of brook trout to low levels of human disturbance. Although variable, brook trout density tended to decrease with increasing impervious land cover up to the threshold. Therefore, development below the upper limit may still have negative effects on the long-term persistence of populations. Few management alternatives are available for maintaining brook trout populations in Maryland watersheds that exceed the impervious land cover threshold.

Impervious surface estimates generated from aerial photographs were consistently higher than those from the 2001 NLCD. The results indicate that (1) relatively small impervious land cover features on the landscape are missed when using data sets of coarser resolution and (2) high-resolution aerial photographs are necessary to generate the most accurate estimates. Such differences help to explain why our landscape-level analysis identified the low threshold resulting in brook trout absence. Even with major differences between land cover estimates, very low impervious land cover amounts were associated with brook trout declines and absence in long-term monitoring sites. Because the amount of effective impervious land cover is lower still (Alley and Veenhuis 1983; Sutherland 1995; LeBlanc et al. 1997), deleterious effects associated with impervious surfaces seem to occur at very low levels of development. The measurement differences also highlight an important point: when assessing the effects of land use, the scale of observation will determine the result. Management recommendations for maximum allowable impervious surfaces could be grossly exceeded if the NLCD is used in place of high-resolution aerial imagery to measure impervious land cover percentages.

Brook trout populations have been disappearing from many central Maryland streams over the last 30 years. From 1970 to 2000, the human population in Maryland increased from 3.9×10^6 to 5.3×10^6, and the population is projected to reach 6.3×10^6 in 2025. Population growth has resulted in substantial landscape alterations in rural areas surrounding Baltimore and Washington, D.C. Such alterations may severely threaten many of Maryland's remaining brook trout populations. Maintaining forests and substantially limiting development are probably the most effective strategies for ensuring persistence of extant populations in Maryland watersheds.

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The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures

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While photovoltaic (PV) renewable energy production has surged, concerns remain about whether or not PV power plants induce a "heat island" (PVHI) effect, much like the increase in ambient temperatures relative to wildlands generates an Urban Heat Island effect in cities. Transitions to PV plants alter the way that incoming energy is reflected back to the atmosphere or absorbed, stored, and reradiated because PV plants change the albedo, vegetation, and structure of the terrain. Prior work on the PVHI has been mostly theoretical or based upon simulated models. Furthermore, past empirical work has been limited in scope to a single biome. Because there are still large uncertainties surrounding the potential for a PHVI effect, we examined the PVHI empirically with experiments that spanned three biomes. We found temperatures over a PV plant were regularly 3–4 °C warmer than wildlands at night, which is in direct contrast to other studies based on models that suggested that PV systems should decrease ambient temperatures. Deducing the underlying cause and scale of the PVHI effect and identifying mitigation strategies are key in supporting decision-making regarding PV development, particularly in semiarid landscapes, which are among the most likely for large-scale PV installations.

Electricity production from large-scale photovoltaic (PV) installations has increased exponentially in recent decades[1–3]. This proliferation in renewable energy portfolios and PV powerplants demonstrate an increase in the acceptance and cost-effectiveness of this technology[4,5]. Corresponding with this upsurge in installation has been an increase in the assessment of the impacts of utility-scale PV[4,6–8], including those on the efficacy of PV to offset energy needs[9,10]. A growing concern that remains understudied is whether or not PV installations cause a "heat island" (PVHI) effect that warms surrounding areas, thereby potentially influencing wildlife habitat, ecosystem function in wildlands, and human health and even home values in residential areas[11]. As with the Urban Heat Island (UHI) effect, large PV power plants induce a landscape change that reduces albedo so that the modified landscape is darker and, therefore, less reflective. Lowering the terrestrial albedo from ~20% in natural deserts[12] to ~5% over PV panels[13] alters the energy balance of absorption, storage, and release of short- and longwave radiation[14,15]. However, several differences between the UHI and potential PVHI effects confound a simple comparison and produce competing hypotheses about whether or not large-scale PV installations will create a heat island effect. These include: (*i*) PV installations shade a portion of the ground and therefore could reduce heat absorption in surface soils[16], (*ii*) PV panels are thin and have little heat capacity per unit area but PV modules emit thermal radiation both up and down, and this is particularly significant during the day when PV modules are often 20 °C warmer than ambient temperatures, (*iii*) vegetation is usually removed from PV power plants, reducing the amount of cooling due to transpiration[14], (*iv*) electric power removes energy from PV power plants, and (*v*) PV panels reflect and absorb upwelling longwave radiation, and thus can prevent the soil from cooling as much as it might under a dark sky at night.

Public concerns over a PVHI effect have, in some cases, led to resistance to large-scale solar development. By some estimates, nearly half of recently proposed energy projects have been delayed or abandoned due to local opposition[11]. Yet, there is a remarkable lack of data as to whether or not the PVHI effect is real or simply an issue

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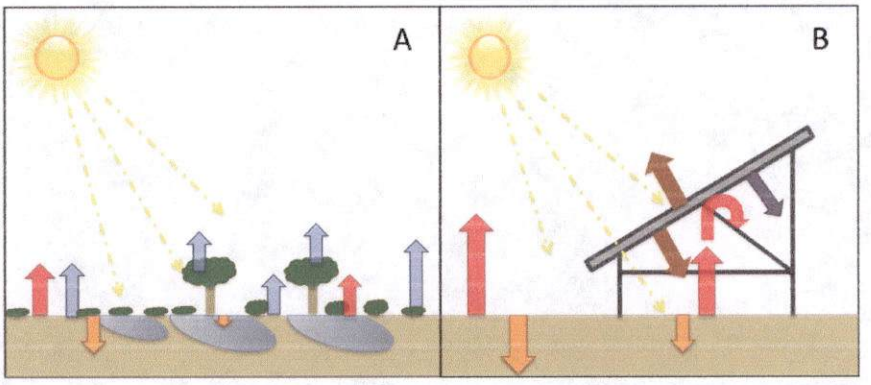

Figure 1. Illustration of midday energy exchange. Assuming equal rates of incoming energy from the sun, a transition from (**A**) a vegetated ecosystem to (**B**) a photovoltaic (PV) power plant installation will significantly alter the energy flux dynamics of the area. Within natural ecosystems, vegetation reduces heat capture and storage in soils (orange arrows), and infiltrated water and vegetation release heat-dissipating latent energy fluxes in the transition of water-to-water vapor to the atmosphere through evapotranspiration (blue arrows). These latent heat fluxes are dramatically reduced in typical PV installations, leading to greater sensible heat fluxes (red arrows). Energy re-radiation from PV panels (brown arrow) and energy transferred to electricity (purple arrow) are also shown.

associated with perceptions of environmental change caused by the installations that lead to "not in my backyard" (NIMBY) thinking. Some models have suggested that PV systems can actually cause a cooling effect on the local environment, depending on the efficiency and placement of the PV panels[17,18]. But these studies are limited in their applicability when evaluating large-scale PV installations because they consider changes in albedo and energy exchange within an urban environment (rather than a natural ecosystem) or in European locations that are not representative of semiarid energy dynamics where large-scale PV installations are concentrated[10,19]. Most previous research, then, is based on untested theory and numerical modeling. Therefore, the potential for a PHVI effect must be examined with empirical data obtained through rigorous experimental terms.

The significance of a PVHI effect depends on energy balance. Incoming solar energy typically is either reflected back to the atmosphere or absorbed, stored, and later re-radiated in the form of latent or sensible heat (Fig. 1)[20,21]. Within natural ecosystems, vegetation reduces heat gain and storage in soils by creating surface shading, though the degree of shading varies among plant types[22]. Energy absorbed by vegetation and surface soils can be released as latent heat in the transition of liquid water to water vapor to the atmosphere through evapotranspiration – the combined water loss from soils (evaporation) and vegetation (transpiration). This heat-dissipating latent energy exchange is dramatically reduced in a typical PV installation (Fig. 1 transition from A-to-B), potentially leading to greater heat absorption by soils in PV installations. This increased absorption, in turn, could increase soil temperatures and lead to greater sensible heat efflux from the soil in the form of radiation and convection. Additionally, PV panel surfaces absorb more solar insolation due to a decreased albedo[13,23,24]. PV panels will re-radiate most of this energy as longwave sensible heat and convert a lesser amount (~20%) of this energy into usable electricity. PV panels also allow some light energy to pass, which, again, in unvegetated soils will lead to greater heat absorption. This increased absorption could lead to greater sensible heat efflux from the soil that may be trapped under the PV panels. A PVHI effect would be the result of a detectable increase in sensible heat flux (atmospheric warming) resulting from an alteration in the balance of incoming and outgoing energy fluxes due to landscape transformation. Developing a full thermal model is challenging[17,18,25], and there are large uncertainties surrounding multiple terms including variations in albedo, cloud cover, seasonality in advection, and panel efficiency, which itself is dynamic and impacted by the local environment. These uncertainties are compounded by the lack of empirical data.

We addressed the paucity of direct quantification of a PVHI effect by simultaneously monitoring three sites that represent a natural desert ecosystem, the traditional built environment (parking lot surrounded by commercial buildings), and a PV power plant. We define a PVHI effect as the difference in ambient air temperature between the PV power plant and the desert landscape. Similarly, UHI is defined as the difference in temperature between the built environment and the desert. We reduced confounding effects of variability in local incoming energy, temperature, and precipitation by utilizing sites contained within a 1 km area.

At each site, we monitored air temperature continuously for over one year using aspirated temperature probes 2.5 m above the soil surface. Average annual temperature was $22.7 + 0.5\,^{\circ}C$ in the PV installation, while the nearby desert ecosystem was only $20.3 + 0.5\,^{\circ}C$, indicating a PVHI effect. Temperature differences between areas varied significantly depending on time of day and month of the year (Fig. 2), but the PV installation was always greater than or equal in temperature to other sites. As is the case with the UHI effect in dryland regions, the PVHI effect delayed the cooling of ambient temperatures in the evening, yielding the most significant difference in overnight temperatures across all seasons. Annual average midnight temperatures were $19.3 + 0.6\,^{\circ}C$ in the PV installation, while the nearby desert ecosystem was only $15.8 + 0.6\,^{\circ}C$. This PVHI effect was more significant in terms of actual degrees of warming ($+3.5\,^{\circ}C$) in warm months (Spring and Summer; Fig. 3, right).

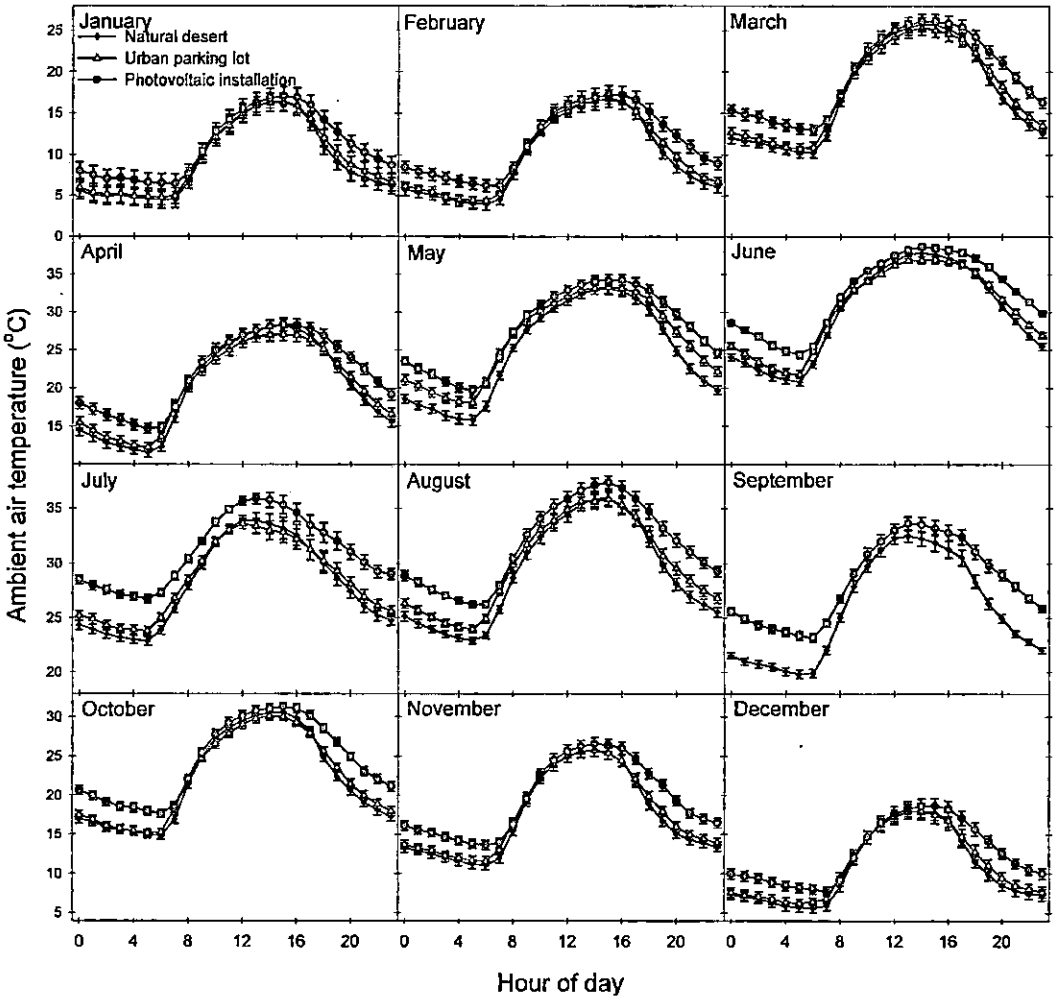

Figure 2. Average monthly ambient temperatures throughout a 24-hour period provide evidence of a photovoltaic heat island (PVHI) effect.

In both PVHI and UHI scenarios, the greater amount of exposed ground surfaces compared to natural systems absorbs a larger proportion of high-energy, shortwave solar radiation during the day. Combined with minimal rates of heat-dissipating transpiration from vegetation, a proportionally higher amount of stored energy is reradiated as longwave radiation during the night in the form of sensible heat (Fig. 1)[15]. Because PV installations introduce shading with a material that, itself, should not store much incoming radiation, one might hypothesize that the effect of a PVHI effect would be lesser than that of a UHI. Here, we found that the difference in evening ambient air temperature was consistently greater between the PV installation and the desert site than between the parking lot (UHI) and the desert site (Fig. 3). The PVHI effect caused ambient temperature to regularly approach or be in excess of 4 °C warmer than the natural desert in the evenings, essentially doubling the temperature increase due to UHI measured here. This more significant warming under the PVHI than the UHI may be due to heat trapping of re-radiated sensible heat flux under PV arrays at night. Daytime differences from the natural ecosystem were similar between the PV installation and urban parking lot areas, with the exception of the Spring and Summer months, when the PVHI effect was significantly greater than UHI in the day. During these warm seasons, average midnight temperatures were 25.5 + 0.5 °C in the PV installation and 23.2 + 0.5 °C in the parking lot, while the nearby desert ecosystem was only 21.4 + 0.5 °C.

The results presented here demonstrate that the PVHI effect is real and can significantly increase temperatures over PV power plant installations relative to nearby wildlands. More detailed measurements of the underlying causes of the PVHI effect, potential mitigation strategies, and the relative influence of PVHI in the context of the intrinsic carbon offsets from the use of this renewable energy are needed. Thus, we raise several new questions and highlight critical unknowns requiring future research.

What is the physical basis of land transformations that might cause a PVHI?

We hypothesize that the PVHI effect results from the effective transition in how energy moves in and out of a PV installation versus a natural ecosystem. However, measuring the individual components of an energy flux model remains a necessary task. These measurements are difficult and expensive but, nevertheless, are indispensable in identifying the relative influence of multiple potential drivers of the PVHI effect found here. Environmental

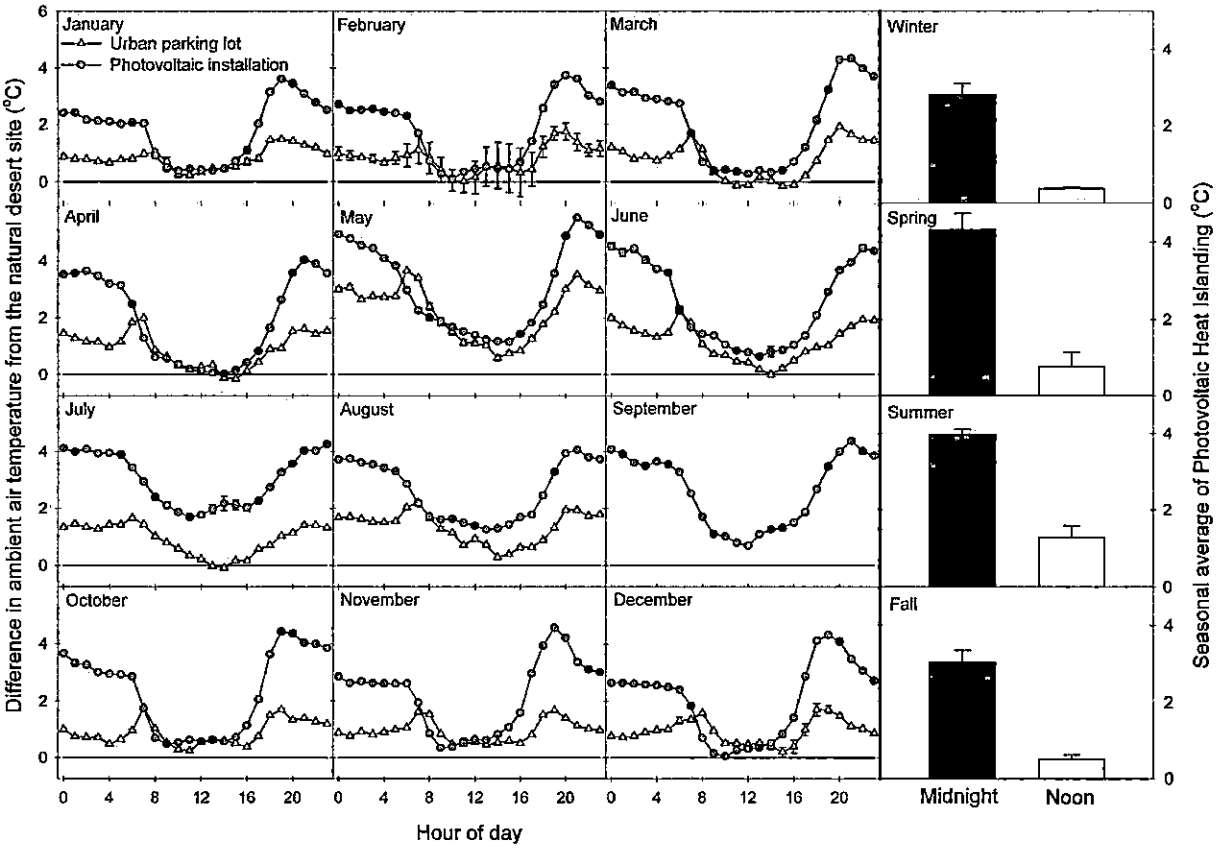

Figure 3. (Left) Average monthly levels of Photovoltaic Heat Islanding (ambient temperature difference between PV installation and desert) and Urban Heat Islanding (ambient temperature difference between the urban parking lot and the desert). (Right) Average night and day temperatures for four seasonal periods, illustrating a significant PVHI effect across all seasons, with the greatest influence on ambient temperatures at night.

conditions that determine patterns of ecosystem carbon, energy, and water dynamics are driven by the means through which incoming energy is reflected or absorbed. Because we lack fundamental knowledge of the changes in surface energy fluxes and microclimates of ecosystems undergoing this land use change, we have little ability to predict the implications in terms of carbon or water cycling[4,8].

What are the physical implications of a PVHI, and how do they vary by region?

The size of an UHI is determined by properties of the city, including total population[26–28], spatial extent, and the geographic location of that city[29–31]. We should, similarly, consider the spatial scale and geographic position of a PV installation when considering the presence and importance of the PVHI effect. Remote sensing could be coupled with ground-based measurements to determine the lateral and vertical extent of the PVHI effect. We could then determine if the size of the PVHI effect scales with some measure of the power plant (for example, panel density or spatial footprint) and whether or not a PVHI effect reaches surrounding areas like wildlands and neighborhoods. Given that different regions around the globe each have distinct background levels of vegetative ground cover and thermodynamic patterns of latent and sensible heat exchange, it is possible that a transition from a natural wildland to a typical PV power plant will have different outcomes than demonstrated here. The paucity in data on the physical effects of this important and growing land use and land cover change warrants more studies from representative ecosystems.

What are the human implications of a PVHI, and how might we mitigate these effects?

With the growing popularity of renewable energy production, the boundaries between residential areas and larger-scale PV installations are decreasing. In fact, closer proximity with residential areas is leading to increased calls for zoning and city planning codes for larger PV installations[32,33], and PVHI-based concerns over potential reductions in real estate value or health issues tied to Human Thermal Comfort (HTC)[34]. Mitigation of a PVHI effect through targeted revegetation could have synergistic effects in easing ecosystem degradation associated with development of a utility scale PV site and increasing the collective ecosystem services associated with an area[4]. But what are the best mitigation measures? What tradeoffs exist in terms of various means of revegetating degraded PV installations? Can other albedo modifications be used to moderate the severity of the PVHI?



Figure 4. Experimental sites. Monitoring a (1) natural semiarid desert ecosystem, (2) solar (PV) photovoltaic installation, and (3) an "urban" parking lot – the typical source of urban heat islanding – within a 1 km² area enabled relative control for the incoming solar energy, allowing us to quantify variation in the localized temperature of these three environments over a year-long time period. The Google Earth image shows the University of Arizona's Science and Technology Park's Solar Zone.

To fully contextualize these findings in terms of global warming, one needs to consider the relative significance of the (globally averaged) decrease in albedo due to PV power plants and their associated warming from the PVHI against the carbon dioxide emission reductions associated with PV power plants. The data presented here represents the first experimental and empirical examination of the presence of a heat island effect associated with PV power plants. An integrated approach to the physical and social dimensions of the PVHI is key in supporting decision-making regarding PV development.

Methods

Site Description. We simultaneously monitored a suite of sites that represent the traditional built urban environment (a parking lot) and the transformation from a natural system (undeveloped desert) to a 1 MW PV power plant (Fig. 4; Map data: Google). To minimize confounding effects of variability in local incoming energy, temperature, and precipitation, we identified sites within a 1 km area. All sites were within the boundaries of the University of Arizona Science and Technology Park Solar Zone (32.092150°N, 110.808764°W; elevation: 888 m ASL). Within a 200 m diameter of the semiarid desert site's environmental monitoring station, the area is composed of a sparse mix of semiarid grasses (*Sporobolus wrightii, Eragrostis lehmanniana*, and *Muhlenbergia porteri*), cacti (*Opuntia* spp. and *Ferocactus* spp.), and occasional woody shrubs including creosote bush (*Larrea tridentata*), whitethorn acacia (*Acacia constricta*), and velvet mesquite (*Prosopis velutina*). The remaining area is bare soil. These species commonly co-occur on low elevation desert bajadas, creosote bush flats, and semiarid grasslands. The photovoltaic installation was put in place in early 2011, three full years prior when we initiated monitoring at the site. We maintained the measurement installations for one full year to capture seasonal variation due to sun angle and extremes associated with hot and cold periods. Panels rest on a single-axis tracker system that pivot east-to-west throughout the day. A parking lot with associated building served as our "urban" site and is of comparable spatial scale as our PV site.

Monitoring Equipment & Variables Monitored. Ambient air temperature (°C) was measured with a shaded, aspirated temperature probe 2.5 m above the soil surface (Vaisala HMP60, Vaisala, Helsinki, Finland in the desert and Microdaq U23, Onset, Bourne, MA in the parking lot). Temperature probes were cross-validated for precision (closeness of temperature readings across all probes) at the onset of the experiment. Measurements of temperature were recorded at 30-minute intervals throughout a 24-hour day. Data were recorded on a data-logger (CR1000, Campbell Scientific, Logan, Utah or Microstation, Onset, Bourne, MA). Data from this

instrument array is shown for a yearlong period from April 2014 through March 2015. Data from the parking lot was lost for September 2014 because of power supply issues with the datalogger.

Statistical analysis. Monthly averages of hourly (on-the-hour) data were used to compare across the natural semiarid desert, urban, and PV sites. A Photovoltaic Heat Island (PVHI) effect was calculated as differences in these hourly averages between the PV site and the natural desert site, and estimates of Urban Heat Island (UHI) effect was calculated as differences in hourly averages between the urban parking lot site and the natural desert site. We used midnight and noon values to examine maximum and minimum, respectively, differences in temperatures among the three measurement sites and to test for significance of heat islanding at these times. Comparisons among the sites were made using Tukey's honestly significant difference (HSD) test[35]. Standard errors to calculate HSD were made using pooled midnight and noon values across seasonal periods of winter (January-March), spring (April-June), summer (July-September), and fall (October-December). Seasonal analyses allowed us to identify variation throughout a yearlong period and relate patterns of PVHI or UHI effects with seasons of high or low average temperature to examine correlations between background environmental parameters and localized heat islanding.

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Acknowledgements

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Author Contributions

G.A.B.-G., R.L.M. and N.A.A. established research sites and installed monitoring equipment. G.A.B.-G. directed research and R.L.M. conducted most site maintenance. G.A.B.-G., N.A.A., A.D.C. and M.A.P.-Z. led efforts to secure funding for the research. All authors discussed the results and contributed to the manuscript.

Additional Information

Competing financial interests: The authors declare no competing financial interests.

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EDUCATION

M.S. Urban and Regional Planning, The Johns Hopkins University, Baltimore, MD.
B.A. Political Science, Western Maryland College, Westminster, MD.

PROFESSIONAL EXPERIENCE

Private Consultant 1987 - present.

- **Director Partners for Open Space** – Coordinate coalition of more than 100 diverse groups advocating for full funding of Program Open Space.

- **Rural Legacy Program Administrator** - The Land Preservation Trust - Piney Run Watershed, Baltimore County MD. Administrator of a $30 million-dollar purchased conservation easement program. Responsible for all facets of program administration including negotiations with property owners, easement drafting, financial management, and grant development. Have completed 71 easements protecting more than 6,200 acres.

- **Director Baltimore County Land Trust Alliance** – Assist land trusts in Baltimore County with increasing the level of professional development for Boards and land trust activities. Assist in donated easement outreach activities throughout Baltimore County.

- **Land Trust Administration** - The Land Preservation Trust, Inc., Baltimore County, MD. Developed and implemented monitoring program for more than 300 properties currently protected by a conservation easement. Administered Federal Farm and Ranch Protection Program easement purchase program, and a private donation easement purchase program. Assisted in the solicitation of donated easements.

- **Rural Legacy Administrator and Land Trust Administration** – Long Green Valley Conservancy, and Gunpowder Valley Conservancy, Baltimore County, MD.

- **Grant Consultant** to Carroll Community College, Westminster MD. Prepared successful grant application for the establishment of an Advanced Technology Center for Agriculture and Business Development.

- **Developed Comprehensive Plans, Zoning Ordinances and Subdivision Regulations** for the Towns of Hillsboro and Queen Anne, MD. Extensive contact with elected and appointed officials, and individual citizens.

- **Critical Area Plan** - Major contributor to the development and implementation of the Chesapeake Bay Critical Area Plans for the Towns of Chestertown, Hillsboro, Queen Anne, and Snow Hill MD. Primary responsibilities included code revisions, planning strategies, and intergovernmental liaison.

Circuit Rider Town Manager/Planner 1982-1986 - Duties included:

- **Management and land use planning** functions for the Towns of Bennett, Larkspur, and Superior Colorado. Town populations ranged from 200-2000.

Protestant
CBA Exhibit
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- **Grant Administration** - obtained and administered over one million dollars in grants and loans from state and federal agencies. Funding sources included Community Development Block Grant, Colorado Water Conservation Board, Farmers Home Administration, Colorado Department of Health, and Colorado Office of Impact Assistance,

- **Land Use Planning** - coordinated and reviewed all development proposals ranging from a 2,200 acre mixed use annexation to the subdivision of a single lot. Issues examined included the provision of adequate wastewater treatment plants, potable water supplies, education and recreation facilities, road improvements and tax sharing arrangements. Developed and updated comprehensive plans, zoning ordinances, and subdivision regulations.

- **Infrastructure** - analyzed existing infrastructure and developed recommendations for updating the systems. Coordinated with engineering and construction firms on over 2.6 million dollars of infrastructure improvements.

- **Budgets** - Performed general management duties including the development and monitoring of annual operating and capital budgets, and the development of personnel plans and policies and procedures for local government operations.

Colorado Office of Energy Conservation, Denver CO 1980-1982 Energy Planner:

- **Project manager, local government energy program.** Provided technical assistance to local governments throughout Colorado relating to renewable energy and energy conservation programs. Author of a simplified methodology for communities to use to identify community energy supply and demand patterns.

- **Primary contributor** to a methodology for communities to use to identify and evaluate the relationships between environmental quality, energy, and land use planning processes.

Hittman Associates Inc.: Columbia MD, 1976-1979, Energy Planner, Policy Analyst:

- **Major Contributor** to the development of a Comprehensive Community Energy Planning Methodology (CCEMP) for communities to use in the assessment of energy supply and demand patterns, and in the selection of alternatives designed to limit potential supply disruptions.

- **Project scientist** on several projects for DOE, focusing on the urban and community impacts expected from proposed public policy.

- **Policy Analyst** of federal, state and local regulations affecting energy production.

- **Proposal coordinator** and contributor to numerous proposals for federal, state, and local agencies.

Organizations/Awards

- Board Member, Vice Chairperson, **Howard County Agricultural Land Preservation Board**
- Member, Easement and Stewardship Committee, **Maryland Environmental Trust**
- Co-Chair – **Howard County Food Policy Task Force**
- Member, Land Preservation and Protected Open Space Subcommittee, Rural Economies Workgroup, **Sustainable Growth Commission**
- Past President, Current Easement Committee Chair, **Howard County Conservancy**
- Past Board Member and Secretary, **Maryland Environmental Trust**
- Served as Co-Chairman, **Route 40 Re-development Task Force**, Howard County Maryland

- Served as a Member of the Howard County **Rural Residential Land Use Commission;** Howard County A United Vision

Awards

- 2009 Recipient – McHarg Award – **Valleys Planning Council Lifetime Achievement Award**
- 2003 and 2008 Recipient – **Maryland Environmental Trust Aileen Hughes Award for land trust leadership**

Specialized Training

- **Land Trust Alliance Rally** – 2001; 2002; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012, 2013, 2015, 2016, and 2017. Have attended Sessions on Preparing Baseline Documentation, Appraisal Rules, Title Issues, Establishing Conservation Values, Working with the IRS; Drafting of Conservation Easements; Enhanced Valuation and Amendments; Doing the Right Thing; Standards and Practices; Mission, Planning and Capacity, Avoiding Conflicts of Interest, Land Trust Boards Preparing for Perpetuity; Case Law Roundup; Audit Experiences of Colorado; Form 990; Conservation Easement Defense Fund; Amendment Policies; Advanced Tax Strategies in Land Conservation Transactions; Financial Management of Land Trusts; Merging Land Trusts; Avoiding Homelessness for Conservation Easements; Ask the Experts; Accreditation Process; Reserved Rights in Conservation Easements and related legal and technical topics
- 2014 - **National Farmland Preservation Conference.** Topics included Purchased Easement Programs; Allowed Uses on Preserved Farms; Aiding Farm Transition; and Legal and Tax Issues of Conservation Easements.
- 2001 – 2017 – **Maryland Land Trust Alliance Seminar.** Attend and presented at Maryland Land Trust Alliance Annual Seminars each year since 2001.
- 2010 – **Model Easement Training** – Maryland Environmental Trust
- 2010 – Land Trust Alliance Seminar - **Mergers**
- 2013 – Land Trust Alliance – **Steve Smalls' Checklist and Tips for a Conservation Easement Project**
- 2013 – Land Trust Alliance – **Leadership: Executive Director/Board Member Strategy Building.** Four Day Session Focusing on Best Practices for Land Trust Management
- 2007 – Land Trust Alliance Seminar – **Avoiding Conflicts of Interest**
- 2007 – Land Trust Alliance Seminar – **Conservation Easement Appraisal**
- 2007 – Land Trust Alliance Seminar – **Land Trust Boards – Preparing for Perpetuity**
- 2007 – Center for Agro-Ecology Forum – **Land Use Forum for Local Governments**
- 2004 – Maryland Environmental Trust - **Estate Planning Seminar**
- 2005 – Maryland Association of Non-Profits – **Standards of Excellence Training**
- 2001 – Land Trust Alliance Workshop – **Baseline Documentation and Drafting Conservation Easements** – Four Day Seminar in Shepherdstown West Virginia

THE VALLEYS PLANNING COUNCIL INC

The Valleys Planning Council – Position on Case number: 2018-094-X
632 Freeland Rd

Resolved: That the position of the Valleys Planning Council (VPC) as adopted by the Executive Committee on the zoning matter known as: Freeland Road Special Exception Request for a Solar Facility is OPPOSED.

The VPC opposes the special exception request for an industrial solar facility at 632 Freeland Road due to the negative impact on the agricultural industry in the immediate area as well as the entire north county. This property is designated in the Baltimore County Master Plan Land Management Areas map as being within the "Agricultural Priority Preservation Area (APPA)." A critical mass of agricultural land is needed to sustain this $300 million industry for the county, a goal that is supported by decades of public policy, regulation and investments. Prime and productive soils are extremely important to the ag industry and to ensure local food production now and in the future. According to soil maps available online from Baltimore County's My Neighborhood and the Natural Resource Conservation Service, the bulk of the project site is comprised of Class I, II, and III soils, which equate to prime and productive soils.

It makes no sense, and is inconsistent with the Baltimore County Master Plan and RC2 zoning regulations, to waste the most productive soils on a use that can be located almost anywhere in the county. Solar panels can be placed on rooftops, parking lots, contaminated lands, and lesser soils, but crops can only be grown on a finite supply of productive soil.

As stated in the legislative statement of findings for the RC 2 zone:

- *.... Baltimore County is fortunate in that it is endowed with a variety of very productive agricultural soil types which should not be lost unnecessarily to urbanized development;*
- *... the agricultural industry is an integral part of the Baltimore economy and that a continued conversion of agricultural land will continue to undermine this basic industry;*
- *... continued urban intrusion into productive agricultural areas not only destroys the specific area upon which the development occurs but is incompatible with the agricultural use of the surrounding area.*

The VPC believes the solar facility proposed for Freeland Road does not meet certain conditions contained in Section 502.1 of the Baltimore County Zoning Regulations:

- A. Because the facility utilizes prime and productive soils, it harms the ag industry in the general area and therefore is detrimental to the general welfare of the locality.
- G. Because the project utilizes prime and productive soils for a non-farm use, it is inconsistent with the purpose of the RC2 zone as well as the Master Plan designation of APPA.

118 W. Pennsylvania Avenue Towson, Maryland 21204
Mailing Address: P.O. Box 5402 Towson, Maryland 21285-5402
Phone: 410-337-6877 *Fax:* 410-296-5409

Protestant
CBA Exhibit
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We therefore recommend that the special exception request for a solar facility at 632 Freeland Road be denied.

As witness our hands and seal this July 17, 2018.

Attest:

Valleys Planning Council

William G. Stewart
Treasurer

Peter R. Fenwick
President

THE VALLEYS
PLANNING COUNCIL INC

AFFIDAVIT

State of Maryland
Baltimore County

To Wit:

I hearby swear upon penalty of perjury that I am currently the assistant director of The Valleys Planning Council and authorized to testify on behalf of the organization before the Baltimore County Board of Appeals in the matter of the Freeland Road Solar Facility request for a special exception.

As witness our hands and seal this 17th day of July 2018.

Megan Billingsley, Assistant Director
Valleys Planning Council

Attest:

William G. Stewart
Treasurer, Valleys Planning Council

Peter R. Fenwick
President, Valleys Planning Council

118 W. Pennsylvania Avenue Towson, Maryland 21204
Mailing Address: P.O. Box 5402 Towson, Maryland 21285-5402
Phone: 410-337-6877 *Fax:* 410-296-5409

THE VALLEYS
PLANNING COUNCIL INC

Rule 8 Authorization

The Valleys Planning Council (VPC) is a non-profit, land use planning organization established in 1962. It oversees planning issues, policies, and regulations and supports conservation of natural, historic, and environmental assets. Its primary focus is on properties within its 130 square mile territory in the northeast quadrant of Baltimore County; however, it sometimes takes positions on projects or issues that affect a broader area or that would have implications within the VPC territory. The VPC is supported by approximately 500 member families.

RESOLVED: That at the May 8, 2018 annual meeting of the Valleys Planning Council, the responsibility for review and action on all zoning matters for the period May 8, 2018 – May 8, 2019 be placed in the Board of Directors and that the VPC executive director is authorized to testify on behalf of the organization before the County Board of Appeals or other duly constituted zoning agency, body, or commission. At a meeting on July 17, 2018, the executive committee voted to allow VPC's assistant director, Megan Billingsley, to testify and present VPC's adopted position on this and other matters when the executive director is not available.

Teresa Moore, Executive Director
Megan Billingsley, Assistant Director

As witness our hands and seal this July 17, 2018

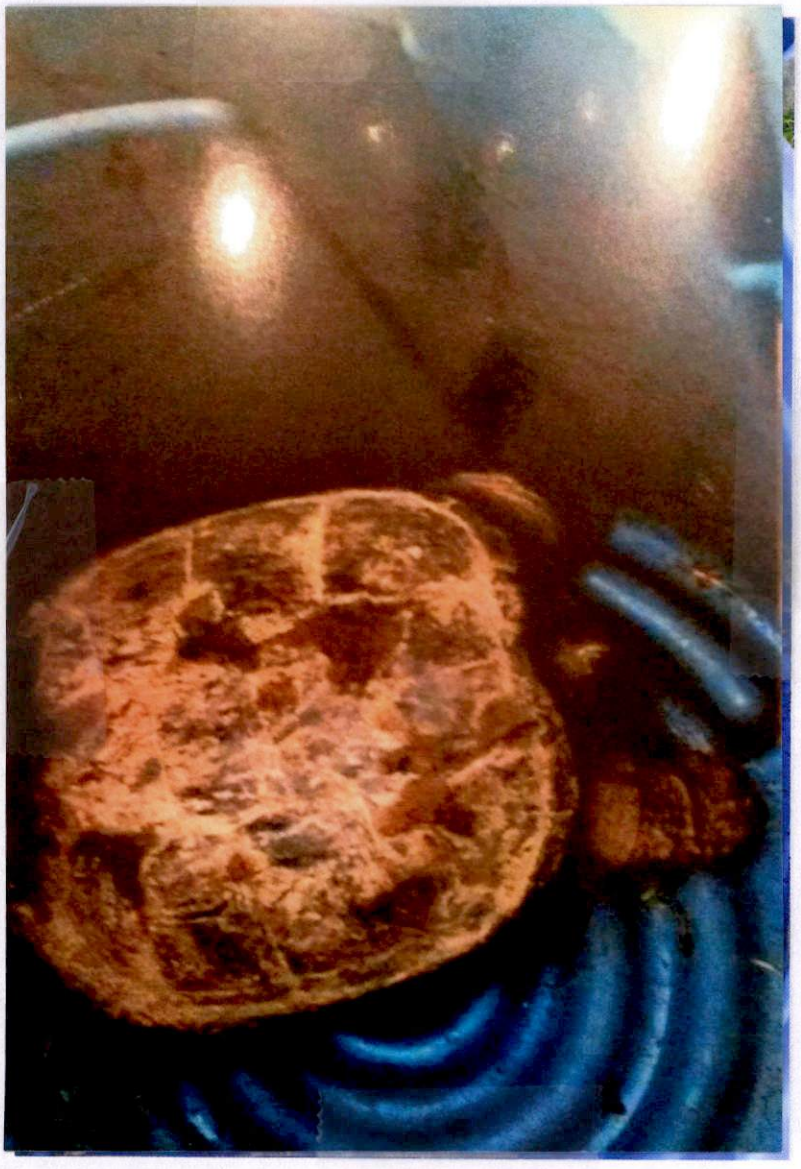
Attest: Valleys Planning Council

William G. Stewart
Treasurer

Peter R. Fenwick
President

118 W. Pennsylvania Avenue Towson, Maryland 21204
Mailing Address: P.O. Box 5402 Towson, Maryland 21285-5402
Phone: 410-337-6877 *Fax:* 410-296-5409





May 26, 2018
Lentz's House
21718 Orwig Rd.
Back East Side of
yard.
relocation: In Woods
heading West Towards
Solar farm -
632 Freeland Rd.

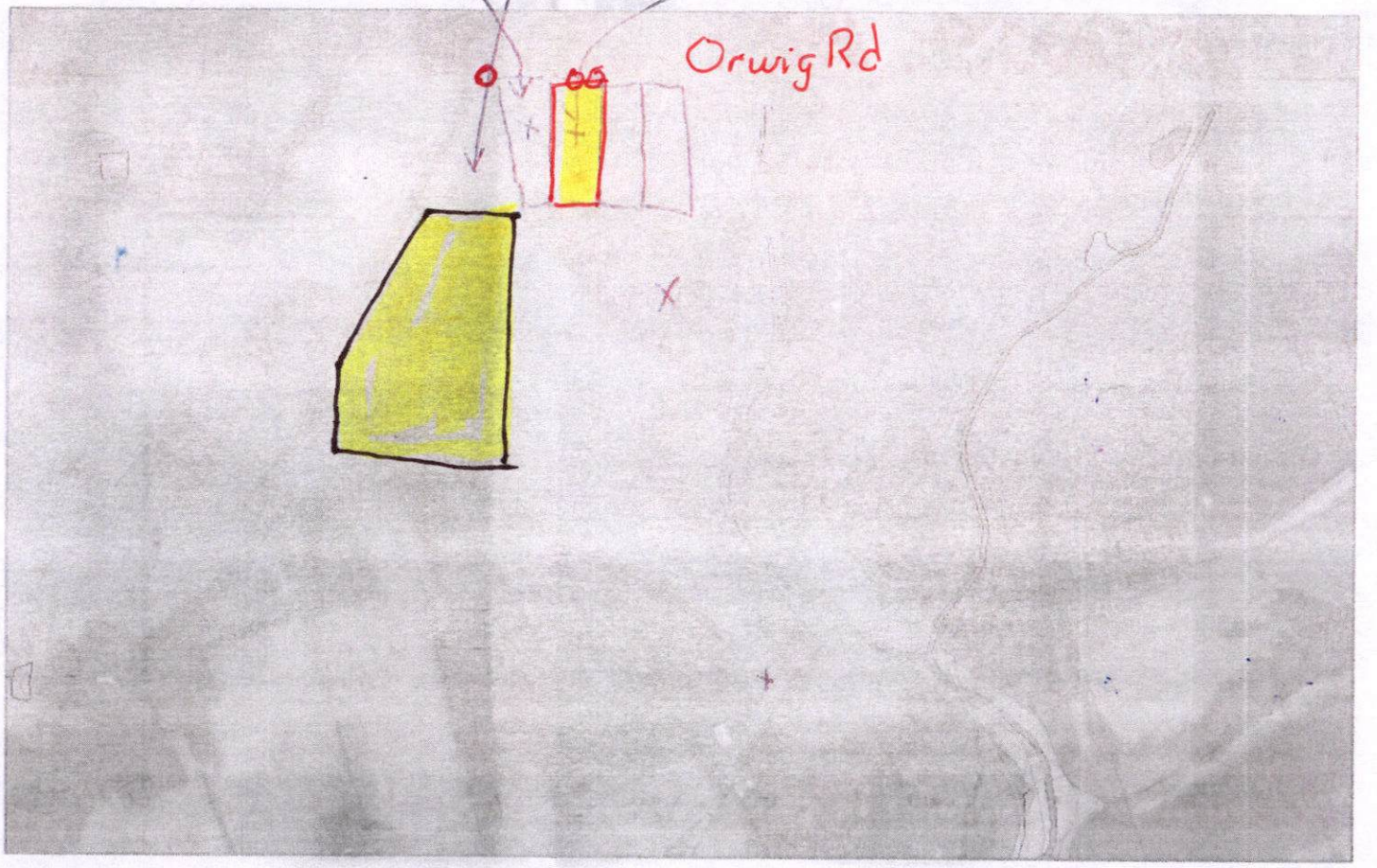
Snapping Turtle

Protestant
CBA Exhibit
10

4	**Environmental Impact & uncertain** process/responsibility for ongoing monitoring/compliance	

632 Freeland Road

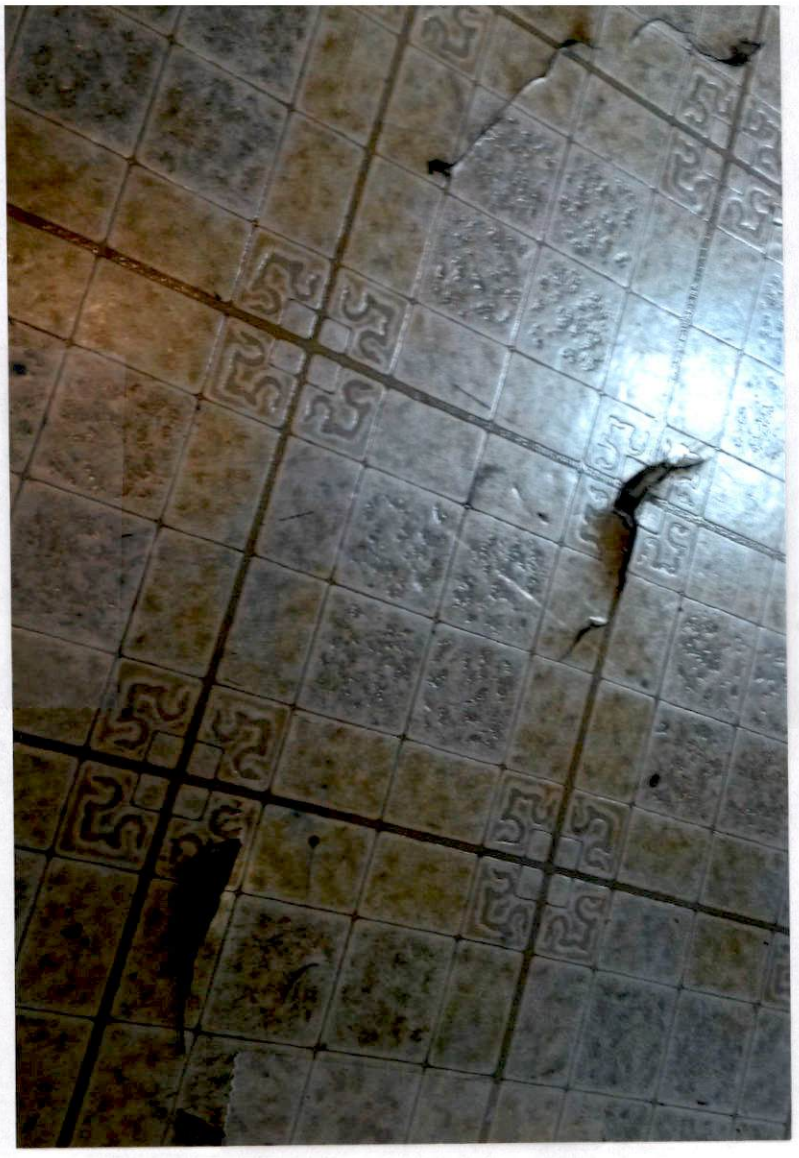
880 ft 900 feet 850 feet



Kathie Pieper 7/18/2018

Protestant
CBA Exhibit
11





Lighting Hit
Lentz Hse
between 1981 + 1984
Split Floor Surface
after going thru
dehumidifier



Lighting Hit
Lentz Hse
between 1993~2008
burned Fan Motor in
Freezer, thru Hse +
grounded on other
side
Fire Co. Called

Protestant
CBA Exhibit
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Sparks-Glencoe Community
Planning Council
P.O. Box 937, Sparks, MD 21152

July 24, 2018

The Board of Appeals
The Jefferson Building
Second Floor
105 West Chesapeake Avenue, Suite 103
Towson, Maryland 21204

Re: 632 Freeland Road
3rd Councilmanic District
Legal Owner: Charles and Stephen Atkinson
Contract Purchaser/Lessee: OneEnergy Development LLC
Hearing Date: July 24, 2018

To the Board of Appeals:

While the Sparks-Glencoe Community Planning Council (SGCPC) is not a party to this case, we are submitting a letter in opposition to the special exception for a commercial solar facility on farmland near our boundaries in Northern Baltimore County.

While we favor solar power in general, we do not support placing commercial solar facilities on our precious farmland resource. These facilities remove land from both agricultural production and preservation easements. They also drive up the cost of leased agricultural land; diminish the property values of contiguous landholders; and impair the viewshed. We note that even the Department of Planning is beginning to understand the growing problem for agriculture that this development represents. The final paragraph of its memorandum refers to the Master Plan's warning of "incremental development" as a threat to the agricultural industry. The letter expressly encourages the question of continued viability of commercial agriculture be included in the calculation of any special exception petition. In this regard, it should be noted that there is a dramatically unequal and unfair distribution of these facilities in the rural Third District which is the District with the vast majority of agricultural land in Baltimore County.

The special exception generates several specific concerns. It appears, for example, that the landowner is represented by the same attorneys that represent the solar company. We do not believe the property owner understands the prospective problem of the vanishing corporation. Should such a scenario occur, the costs would fall to the farmer. Accordingly, any special exception should include an irrevocable bond guaranteed to cover the costs of remediation.

Protestant
CBA Exhibit
13A

The SGCPC is also concerned about the impact on neighboring landowners. The prospect of diminished land values for the surrounding area is real. It is certainly foreseeable that the viewshed of the larger resource conservation area will also be significantly impaired. It is for that reason any special exception must include significant natural buffers which not only protect the view from the adjoining roadways, the adjacent property owners, and also the wider vista. It is our suggestion that the landowner and his lessees be required to install buffers which are designed in accordance with the directives of the Baltimore County landscape architect. It would also be appropriate to provide for input from the immediately impacted property owners whose own land values are at issue.

We have many concerns about the rapid advance of commercial solar facilities in conservation areas without studying the consequences. We believe that this land rush for commercial solar on farmland is ill considered. We are also aware that the Baltimore County Planning Board is expressing serious reservations about these projects. There is no other Maryland county that permits it. We have made some requests in this letter for conditions on any special exception. By making those suggestions, we do not mean to imply that we think the Board should grant a special exception.

Thank you for your patience and consideration in this matter.

Sincerely,

Lynne Jones, President

The SGCPC is also concerned about the impact on neighboring landowners. The prospect of diminished land values for the surrounding area is real. It is certainly foreseeable that the viewshed of the larger resource conservation area will also be significantly impaired. It is for that reason any special exception must include significant natural buffers which not only protect the view from the adjoining roadways, the adjacent property owners, and also the wider vista. It is our suggestion that the landowner and his lessees be required to install buffers which are designed in accordance with the directives of the Baltimore County landscape architect. It would also be appropriate to provide for input from the immediately impacted property owners whose own land values are at issue.

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Thank you for your patience and consideration in this matter.

Sincerely,

Lynne Jones, President

THE SPARKS GLENCOE COMMUNITY PLANNING COUNCIL, INC.

BE IT RESOLVED: That at the ANNUAL MEETING of The Sparks Glencoe Community Planning Council, Inc. held on April 18, 2018, it was decided that responsibility for review and action on all zoning and development matters for the period 2018-2019 be placed on the Board of Directors and/or members of the duly elected Zoning Committee.

ATTEST: The Sparks Glencoe Community Planning Council, Inc.

Lynne Jones
President
Lynne Jones

Wendy L. McIver
Reporting Secretary
Wendy McIver

Protestant
CBA Exhibit
13B

THE SPARKS GLENCOE COMMUNITY PLANNING COUNCIL, INC.

RESOLVED: That the position of the Sparks Glencoe Community Planning Council, Inc. as adopted by the Board of Directors on the zoning matter known as:

632 Freeland Road Solar Special Exception CBA-18-194-X

The Sparks-Glencoe Community Planning Council ("Sparks-Glencoe" or "SGCPC") is a community organization dedicated to preserving the rural character and natural resources of northern Baltimore County.

Sparks-Glencoe is opposed to the special exception in this matter for the following reasons:

1. The development removes productive land from agricultural production and preservation easements; drives up the cost of leased agricultural land; diminishes the property values of contiguous landowners; and impairs the viewshed of the larger resource conservation area.
2. There is no adequate program for remediation of the site at the end of the useful life of the facility.
3. Constructing large commercial energy facilities of any sort in resource conservation areas is inconsistent with the Baltimore County Master Plan goal of maintaining the rural character of the area and is a prime example of "incremental development" which the Master Plan identifies as a threat to the agriculture industry.

Therefore, we ask the Board of Appeals to uphold the spirit and intent of the Zoning Regulations and the Master Plan, which are to protect natural resources and maintain the character of the rural area, by denying this special exception.

AS WITNESS OUR HANDS AND SEAL THIS 10th DAY OF September 2018.

ATTEST: The Sparks Glencoe Community Planning Council, Inc.

Wendy McIver, Reporting Secretary

Lynne Jones, President

AFFIDAVIT

STATE OF MARYLAND

BALTIMORE COUNTY, SS:

TO WIT:

I hereby swear upon penalty of perjury that I, Lynne Jones, am currently a duly elected member of the Board of Directors of The Sparks Glencoe Community Planning Council, Inc.

AS WITNESS OUR HANDS AND SEAL THIS 10th DAY OF September 2018.

ATTEST: The Sparks Glencoe Community Planning Council, Inc.

Wendy McIver, Reporting Secretary

Lynne Jones, President



East end of property, 612 Freeland Rd



632 Freeland Rd



Corner of Freeland Oakland Rds. There was no notice of hearing on Freeland road,

Case #2018-0194-X

Photos taken 3/29/2018 by Lynne Jones; Administrative Law Judge hearing scheduled for 3/30

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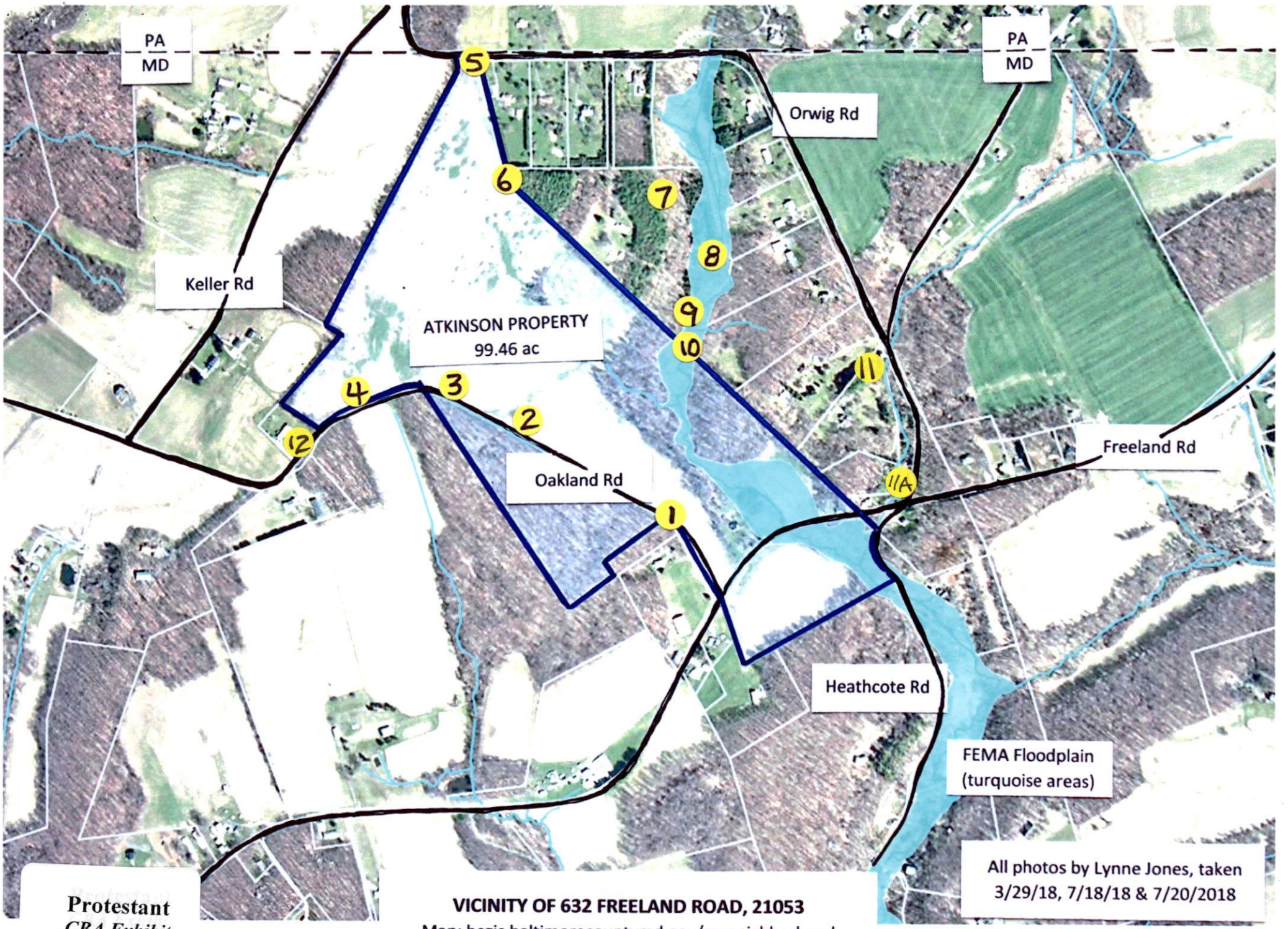
CBA Exhibit
15A-C



VICINITY OF 632 FREELAND ROAD, 21053

Map: bcgis.baltimorecountymd.gov/myneighborhood

All photos by Lynne Jones, taken 3/29/18, 7/18/18 & 7/20/2018

Protestant
CBA Exhibit
16A



View facing East-Southeast from Oakland Rd; Freeland Rd is at end of curve in road to right. At this vantage the scenic view is memorable. Having two scenic roads adjoining property is remarkable.





Facing North-Northwest on Oakland Rd.: both Freeland and Oakland Rds are Scenic Routes.
Bottom: Posted sign on site field, both Altmeyer's (top of hill) and Rohe's (on right) homes can be seen from this scenic road.

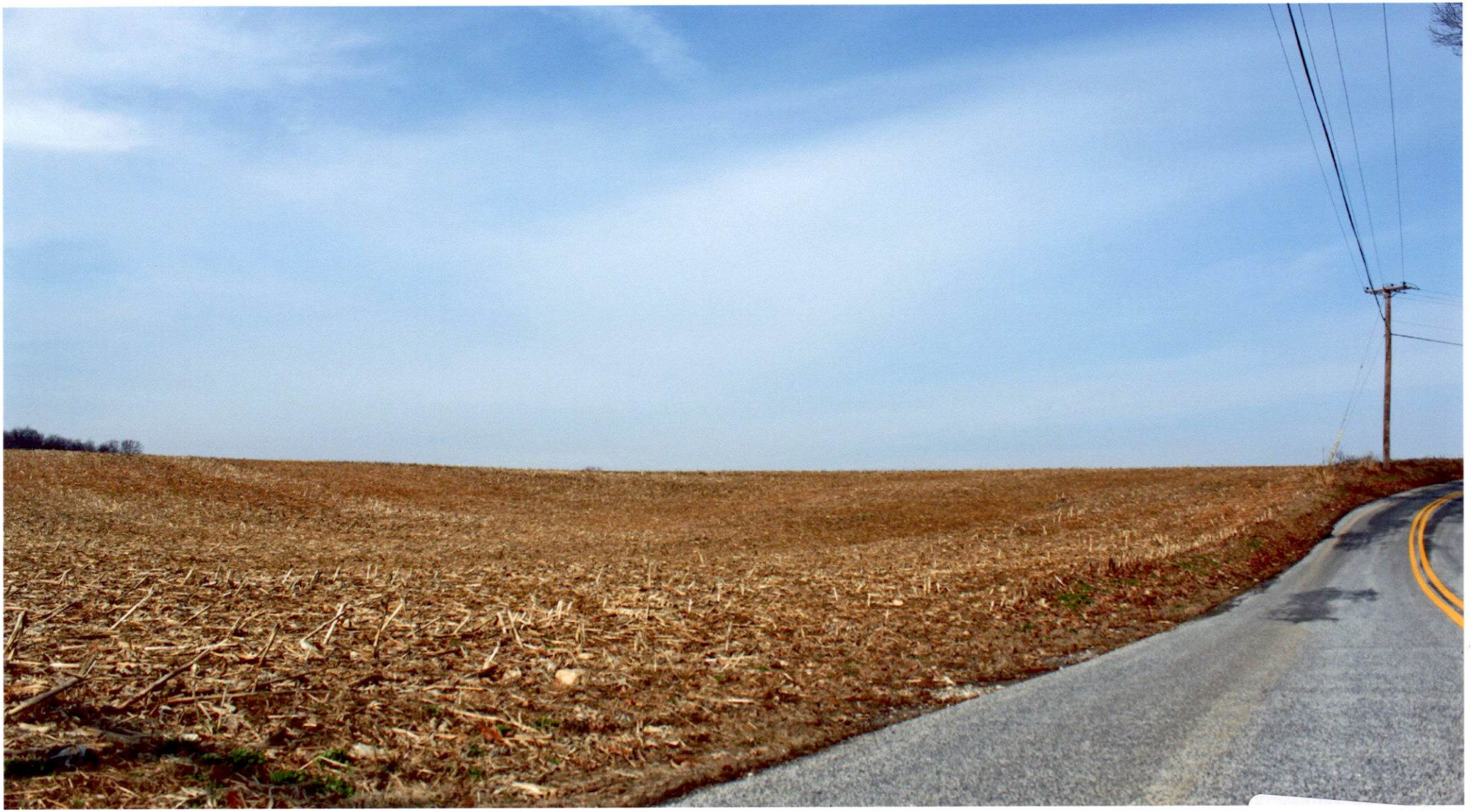
Protestant
CBA Exhibit
16 C



Protestant
CBA Exhibit
16D

Blind curve on Oakland Road, facing West. Proposed arrays would be situated at this site.

Any glare from panels (which face South towards the road) could increase the chance of driver error at this site. Landscaping would not block panels from road until trees matured enough to completely hide them.



Protestant
CBA Exhibit
16E

Oakland Rd, facing East: visible curve in the road is a blind curve for drivers heading from both directions.

This photo shows the western slope of field, in which solar panels would impact runoff.

Especially during and after wet weather, this section of road is constantly wet from runoff from proposed field.

In winter ice forms on roadway and can last for many days/weeks at this location as there's slower water runoff from fields in freezing weather.

Also, due to its location, snow is easily blown from field to cover surface of roadway.



Facing South on Orwig Rd, highest point on property. Proposed site field continues to tree line. This facility would be seen, even with screening, from many vantages.



Another view facing South at high point of property. Note Oakland Rd can be seen in center of tree line in photo from this vantage point (Altmeyer property).



Beautiful country path into the heart of the Rohe's property. Black walnut trees line this fire road. There are plenty of wildlife resources and food here, year-round. Environments like this are preferred by animals who forage at night in adjoining open fields and bed down in quiet glens like this. This property has several different environs that would suit most local indigenous animals, birds, reptiles and insects.



View looking South towards Oakland Rd from Rohe's property. Several neighbors who live on Orwig Rd have a similar view.
The proposed solar facility would completely destroy this bucolic vista, diminishing these landowners' quality of life and real estate values.



Designated wetlands on Rohe property. This land is contiguous to Atkinson property. It is very unique because of its' variety of terrains, vegetation, views from its' boundaries, and it is home to many varieties of trees and wildlife.

It would be difficult to locate another property like this in Northern Baltimore County.

Introducing a commercial facility next to this would diminish this property's rural character and real estate value.



Stream on Rohe's property; this stream has been classified within a floodplain by FEMA, which runs onto the Atkinson property, which will be impacted by runoff from solar panels. This will negatively impact other properties downstream during heavy rain and snow events. It is also a protected Class III Trout stream. There are 'young of the year' fish in these waters; it's the preferred type of stream for trout to lay their eggs.



View from Rohe's property facing West, location of proposed facility. The land slopes down in an eastwardly direction from the top of the field. Runoff would increase dramatically into the stream on this property, which is already a designated FEMA floodplain.
In recent years neighbors report that Bald Eagle families have been spotted in trees at top of field.



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16M



Protestant
CBA Exhibit
16N

11A.

Top: Bridge/culvert on Orwig/Heathcote Rd, facing West. This stream flows into the Atkinson property stream at Southern end of property.
Bottom: Bridge/culvert at corner of Freeland and Heathcote Rds, facing West; same stream as top photo. See damage to road and shoulder due to high runoff.



View from west side of property from neighboring property.



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View from west side of property facing east. Oakland Rd is on right, Altmeyer house visible at top of field. Photos: 7/22/18
Solar panels would face south towards Oakland Rd. Any glare from these panels could disturb drivers along this double-blind curve section of road.



632 Freeland Rd Solar Facility Case # 2018-0194-X

Light Green areas: Preserved agricultural lands.

Light Blue lines: Waterways on and near property; this is in the Loch Raven Reservoir watershed.

Protestant
CBA Exhibit
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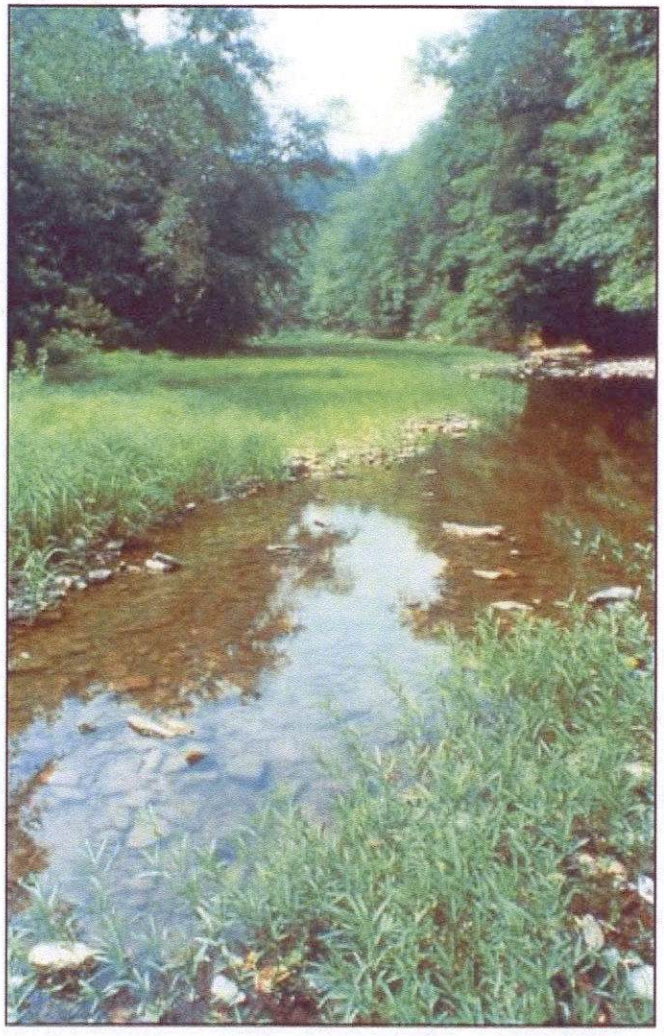
What are Targeted Ecological Areas?

- Targeted Ecological Areas (TEAs) are lands and watersheds identified by the Maryland Department of Natural Resources as the most ecologically valuable areas in the State
- They are the "Best of the Best"
- TEAs are preferred for conservation funding through Stateside Program Open Space



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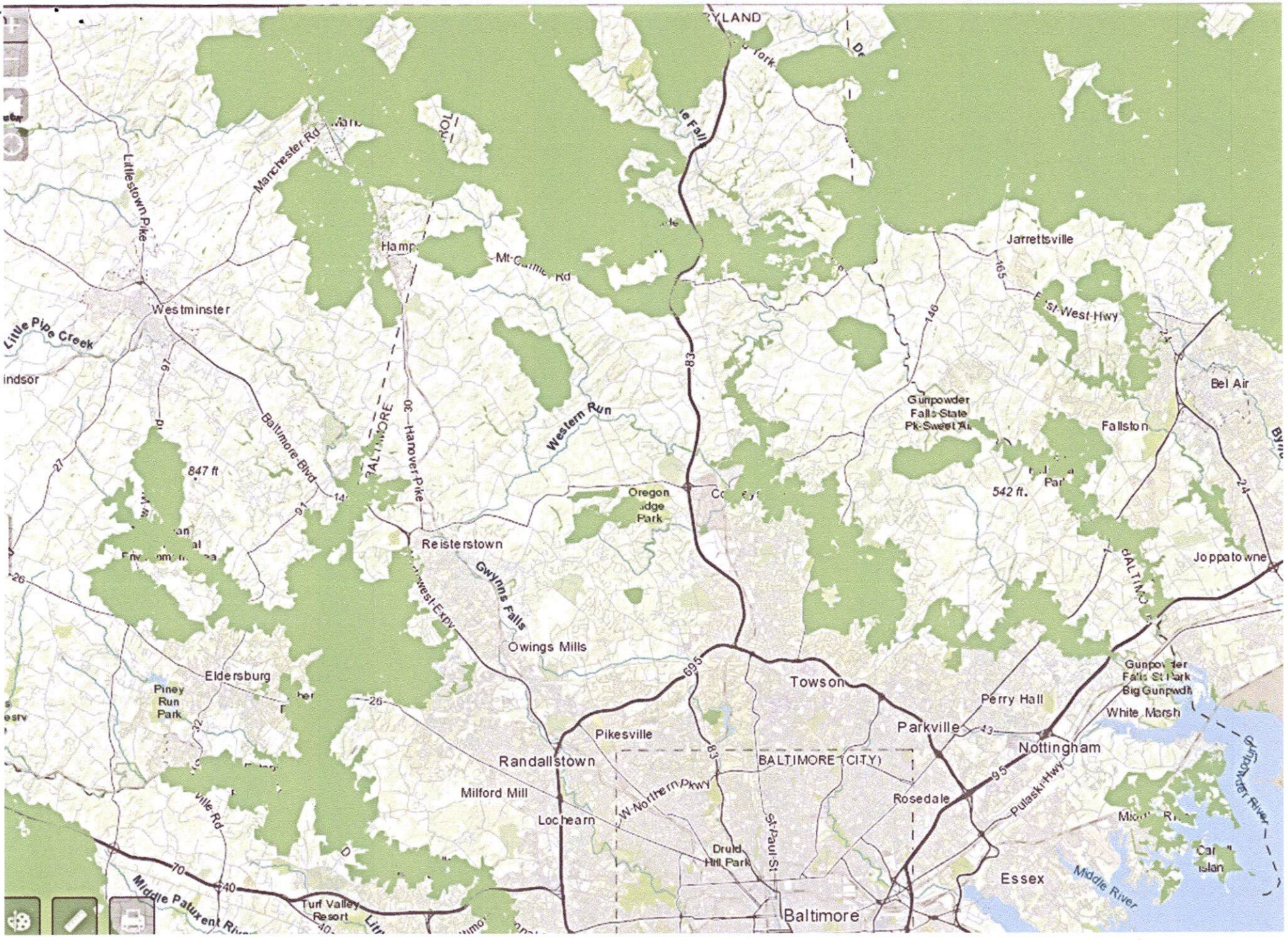
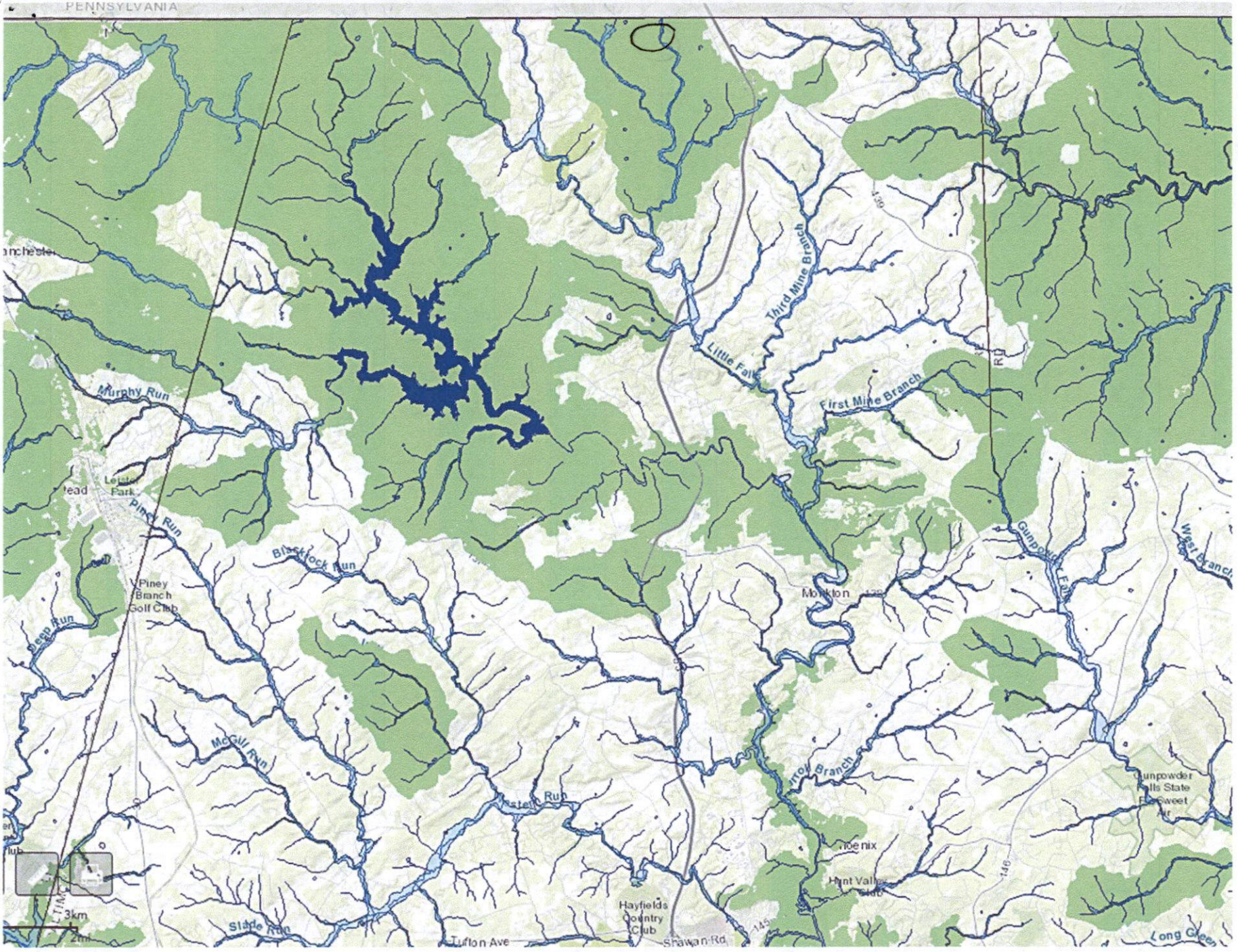
2011 Targeted Ecological Areas



These lands, which are the most ecologically important areas in the state, are targeted for conservation through Stateside Program Open Space (POS).



Targeted Ecological Areas in Baltimore County
gisapps.dnr.state.md.us/MERLIN/index.html#



Targeted Ecological Areas
MERLIN, DNR

Recent Trends

In order to create sustainable communities, citizens and decision–makers must recognize the latest trends in housing choices and changes in family makeup. More homebuyers and renters desire to live in areas with shorter commutes to work, convenient access to shopping, dining, and other amenities. Traditional families, married couples with children, are becoming much less common. Young professionals, childless couples, empty nesters and single parents are replacing these traditional families. These consumers tend to prefer condominiums, townhouses and apartments in compact, mixed-use, walkable communities instead of single-family homes in the suburbs.

"Persons born after 1981 and baby boomers prefer to live in compact dense urban places."
Governing Magazine March 2009

"For 50 years, families with children drove America's housing industry. But now, married couples with children make up less than 25 percent of American households. And by 2025, less than 20 percent of households will be married couples with children."
"America's Families and Living Arrangements: 2003" U.S. Census Bureau (November 2004)

"When prospective homebuyers were asked if they would rather live in a large-lot neighborhood where they would depend entirely on cars to get around, or in more compact neighborhoods with schools, shops, and restaurants nearby, sixty percent chose the compact neighborhood."
Smart Growth America and National Association of Realtors. 2004 American Community Survey: National Survey on Communities, Washington, DC., October 2004

Land Management Areas

Master Plan 2020 designates "Land Management Areas" that organize the County into general policy areas. The purpose of these areas is to express the *general intention* of the County regarding development and provision of services. More specific details pertaining to these areas can be found in their respective sections of the plan. Additionally, many of these areas have specific community level plans adopted as part of *Master Plan 2020*. The Land Management Areas include the following:

Rural Areas

Agriculture Priority Preservation Areas – These areas are designated for preserving active agriculture activities, and as such are not suitable for dense residential, commercial, or institutional development. The County also designated areas for the Rural Legacy Program including the Coastal, Piney Run, Gunpowder, Long Green, and Manor areas.

Resource Preservation Areas – These areas are designed to protect environmental, historic, and cultural resources, while allowing only limited residential, commercial or institutional development. These areas include Patapsco/Granite, Prettyboy Reservoir, Gunpowder, Liberty Reservoir, Chesapeake Bay, Loch Raven Reservoir, and Soldiers Delight.

Rural Commercial Centers – The County has two rural commercial centers: Hereford and Jacksonville. Community plans have been prepared for each of these centers to help guide development.

Rural Residential Areas – Some areas of limited low-density development are established. These areas include Chestnut Ridge, Parkton, Patapsco/Granite, Hereford, Kingsville, and Jacksonville.

Urban Areas

Community Conservation Areas – These areas generally consist of lower to moderate density suburban residential neighborhoods. The neighborhoods are served with public water and sewer service. The preservation and stability of these communities is of paramount importance. The majority of these areas have community plans adopted as part of the Master Plan. They also contain a significant amount of commercial development, located primarily along the commercial corridors. Areas suitable for compact, mixed-use, walkable, transit oriented development are called Community Enhancement Areas (CEAs). Commercial Revitalization Districts (CRDs), and strip commercial corridors are also located within some of these areas.

Towson Urban Center – This urban center has been the subject of multiple studies. More specific detail

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can be found within the *Towson Urban Area* section of the plan.

Owings Mills Growth Area – The last of the originally designated growth areas. See the *Owing Mills Growth Area* section for more information.

Middle River Redevelopment Area – The newest designated growth area. Details are provided in the *Middle River Redevelopment Area* section in the plan.

Employment Center – These areas generally consist of a variety of commercial uses predominantly employment-oriented, some with retail and housing. They may contain heavy industrial uses as well. These areas include CEAs, CRDs, and strip commercial areas. The preservation of family-supporting wage employment is the primary goal.

Proposed Land Use

The Proposed Land Use Map provides general recommendations for land use, based upon the policies provided in *Master Plan 2020*. The map is conceptual and general, and is intended to reflect land use patterns and support the land use objectives of *Master Plan 2020*, rather than identify land use of individual properties or parcels. The use of transects, and "T-zones", is designed to support compact mixed-use communities, while maintaining the stability of existing community conservation areas (Map 5). The proposed land use map will provide general direction for county land use decisions, and may be amended as needed.

Transect-Based Planning for the Built Environment

A "transect" of nature, first conceived by Alexander Von Humboldt at the close of the 18th century, is a geographical cross-section of a region intended to reveal a sequence of environments. Originally, it was used to analyze natural ecologies, showing varying characteristics through different zones such as shores, wetlands, plains and uplands. It helps study the many elements that contribute to habitats where certain plants and animals thrive in symbiotic relationships to the minerals and microclimate.

This same system can be used to demonstrate different human habitats. Some individuals prefer living on farms while others prefer living in cities. Before the automobile, American development patterns were walkable, and transects within towns and city neighborhoods reflected a variety of development patterns and uses. These degrees of urbanism are represented in a rural-to-urban transect has been developed which provides six "Transect Zones" (T-zones) for application on the proposed land use map.

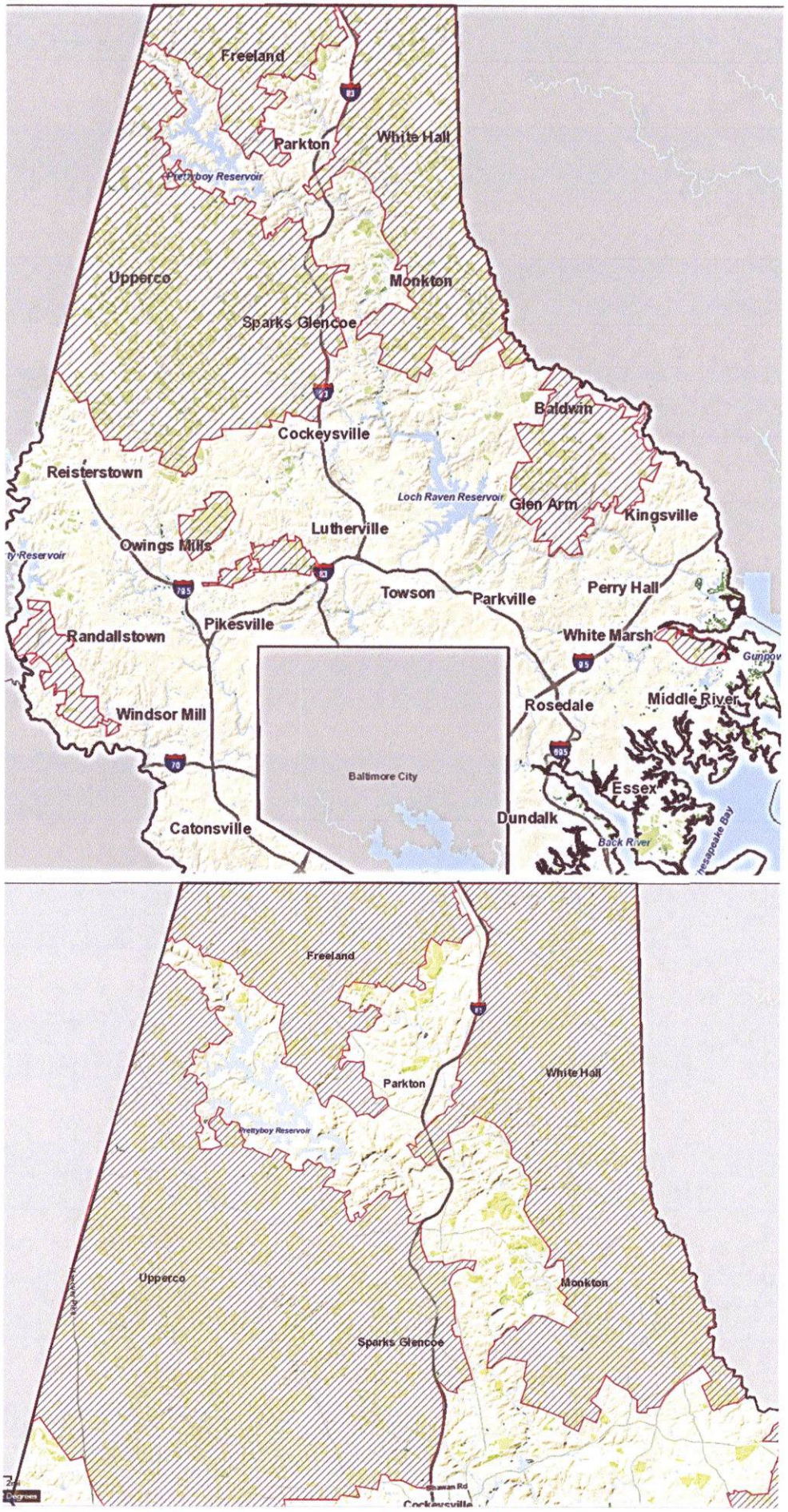
The transect, as a framework, identifies a range of habitats from the most natural to the most urban (Map 5). Its continuum, when subdivided, lends itself to the creation of zoning categories. These categories include standards that encourage diversity. The standards overlap, reflecting the successional pattern of development and natural ecosystems. The transect thereby integrates environmental and zoning methodologies, enabling the design of compact, mixed-use, walkable communities that support the viability of natural ones.

- **T-1 (Natural Zone)** contains lands approximating a natural condition, including lands unsuitable for settlement due to topography, hydrology, or vegetation.

- **T-2 (Rural Zone)** consists of sparsely settled lands in an open or cultivated state. These include woodlands, agricultural lands, and grasslands. Typical buildings may include farmhouses and agricultural buildings.

- **T-2 R (Rural Residential Zone)** consists of large lot single-family detached housing. Plantings are informal. All setbacks are generally 50+ feet. Lots are deep to accommodate a larger backyard. Density varies between 2 to 5 acres per dwelling.

- **T-2 V (Rural Village Zone)** takes into account the rural villages of Hereford and Jacksonville. This zone has a mix of smaller scale retail/ office and some residential uses. T-2 V preserves the rural village character featuring an attractive and traditional pattern of houses,



Baltimore County Agricultural Priority Preservation Areas (APPA): striped areas outlined in red.
Preserved Agricultural Farmlands shaded in green. Bottom image: Detail of Map, Northern section of Balto. County.
http://bcgis.baltimorecountymd.gov/myneighborhood

Water Use Classification of County Waterways

In order to protect multiple water uses, the State of Maryland has designated four Use Classes and associated water quality standards. If the water is a source for a public drinking water supply, a "P" follows the Use Class.

The four Use Classes (and subcategories for Use II) are:
Use I
Water contact recreation and protection of non-tidal warm water aquatic life.
Use II
Support of estuarine and marine aquatic life and shell fish harvesting (not all subcategories apply to each tidal water segment); Shellfish harvesting; Seasonal migratory fish spawning and nursery (Chesapeake Bay only); Seasonal shallow-water submerged aquatic vegetation (Chesapeake Bay only); Open-water fish and shellfish (Chesapeake Bay only); Seasonal deep-water fish and shellfish (Chesapeake Bay only); Seasonal deep-channel refuge use (Chesapeake Bay only)
Use III
Non-tidal cold water – usually considered natural trout waters
Use IV
Recreational trout waters – waters that are stocked with trout

These waters support aquatic communities and provide for human uses such as agricultural irrigation and livestock watering, drinking water, industrial uses, fishing and boating, and receiving areas for treated wastewater. Having adequate clean water to support all of these uses is crucial to continued ecological and human health now and for the future, and for providing for the continued quality of life for citizens and the economic vitality of Baltimore County.

Waters in Baltimore County are of high quality in general. Some water resources are degraded by improper human activities. The waters that do not meet or exceed water quality standards are placed on an impaired waters list (Sec. 303(d) of the federal Clean Water Act) by the State of Maryland. These listings are based on 8-digit watersheds and tidal water segments, with each impairing substance listed separately. Regulations and policies require protection of high quality water resources and improvement of degraded water resources. High quality waters are protected through the permitting requirements associated with Tier II, defined as waters with a better than the average aquatic biological community. Tier II waters meet the anti-degradation requirements of the federal Clean Water Act. For each impairing



substance in any watershed or tidal segment, the State must determine how much of the substance must be reduced through modeling. This is referred to as a Total Maximum Daily Load (TMDL), or the maximum amount of a particular pollutant in a waterway that can be naturally assimilated while maintaining water quality standards

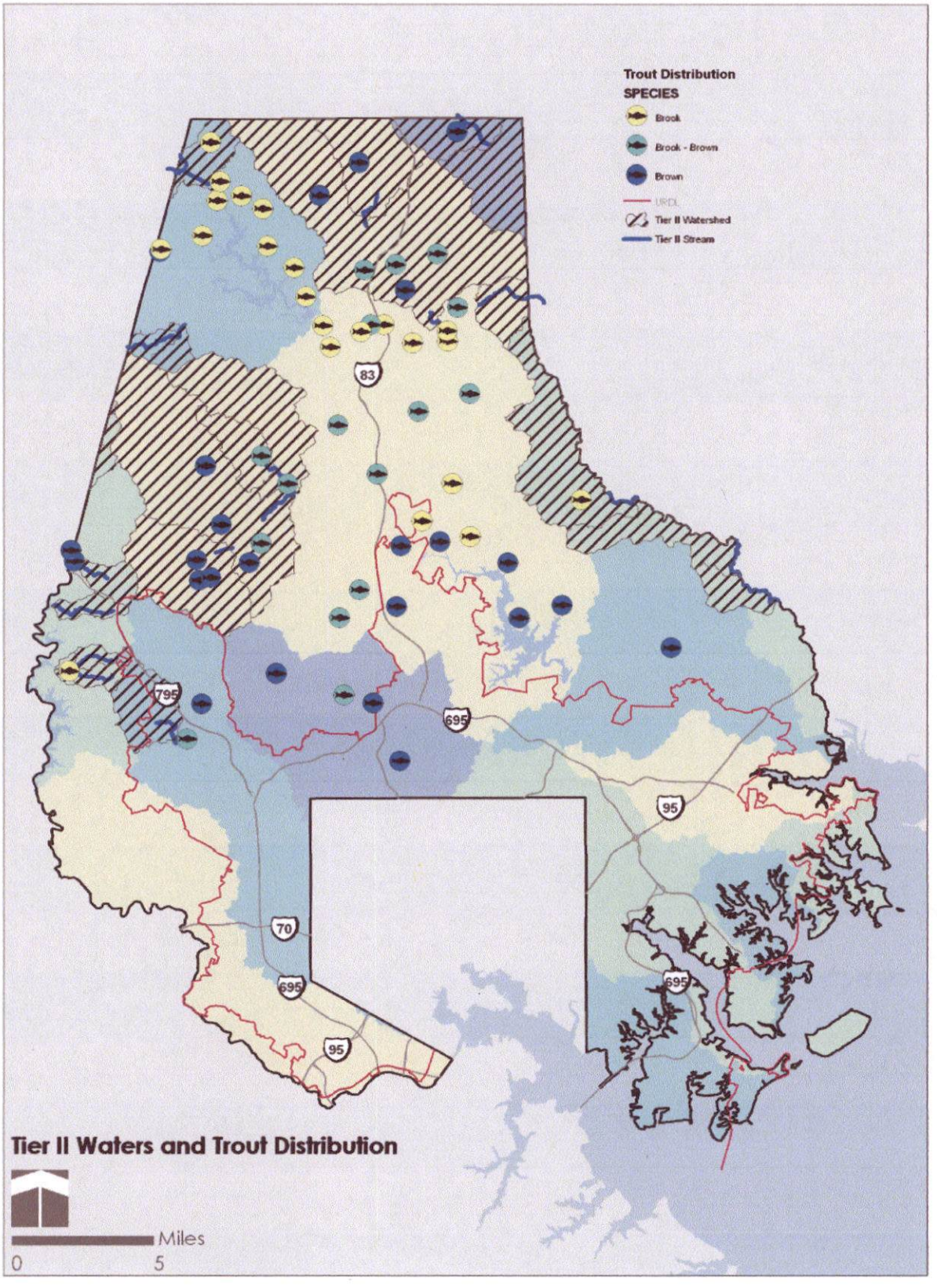
The principal regulatory requirement to address pollution impacts in urban areas is to implement the National Pollutant Discharge Elimination System - Municipal Separate Storm Sewer System (NPDES-MS4) permit. This permit requires the County to control the water quality that is discharged from its storm drain system, by implementing stormwater management, sediment control, education, monitoring, watershed management planning, and restoration programs. These programs are intended to control pollution from new development and restore

Tier II Waters and Trout

Tier II waters are identified and rated on the basis of aquatic community sampling by Maryland Department of Natural Resources. When both the fish and the bottom-dwelling invertebrate community have a rating of "good" the reach of stream represented by the sampling is identified as Tier II waters. Baltimore County has 33 miles of Tier II stream segments at 20 different sites, mainly in rural areas. The drainage area to these sites represents 23% of the County. These stream segments must be protected from degradation.

Trout are also indicative of higher quality water. Baltimore County's streams support a fairly good population of both brook and brown trout. Over 61 sites located on various streams have trout present. The trout are more wide spread than the Tier II waters, indicating that additional Baltimore County streams are still supporting aquatic natural resources.

Map 37: Tier II Waters and Trout Distribution



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(2) Include environmental policies and goals in community plans for the preservation and enhancement of functional open spaces such as greenways and wildlife habitat; the reduction of water, air, and toxic pollution and solid wastes; and the promotion of neighborhood environmental stewardship.
(3) Facilitate the redevelopment of underutilized industrial properties.

(4) Direct redevelopment efforts along the waterfront into historically disturbed, uncontrolled buffer areas in order to maximize water quality protection.

Policy: Assure protection of Tier II waters and those with known trout resources.

Actions:

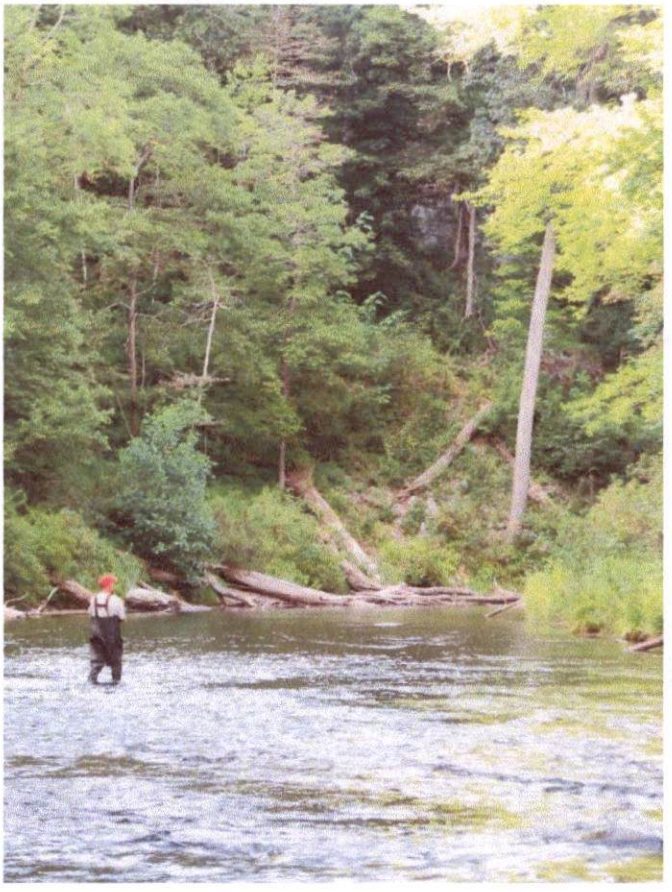
(1) Investigate the development of overlay zones for Tier II waters and those with known trout resources and evaluate the need for additional protection through development regulations.

(2) Examine the feasibility of an offset program to achieve a no net increase in pollutant loads from new development.

(3) Continue to protect water quality, streams, wetlands, floodplains, and forests from impacts of new development and redevelopment.

(4) Implement projects to restore wetlands, reestablish forests, plant stream and shoreline buffers, and stabilize stream channels in impacted watersheds.

(5) Continue to implement the 2006 Baltimore Watershed Agreement with the City of Baltimore for improved and coordinated efforts for public health, trash, stormwater management, community greening, and redevelopment.



Streams and Non-Tidal Wetlands

Baltimore County contains more than 2,100 miles of non-tidal streams and rivers, including some of the highest quality recreational fishery resources in the eastern United States and more than 1,000 miles of streams that drain to the three drinking water reservoirs. A stream system consists of a stream and its associated floodplain, wetlands, and springs. Wetland and riparian vegetation play an essential role in the natural functioning of a stream system, including maintaining base flow, regulating water temperature, controlling pollution, and providing habitat. Pollutants discharged from point and non-point sources degrade stream water quality. These sources include urban runoff (non-point sources, particularly from impervious surfaces), pollutants discharged directly to streams (point sources), and agricultural operations (non-point source). Urban non-point source types of pollution vary and include nutrients, sediments, metals, pesticides, oil and grease, salts, and other particulate and dissolved matter.

Point-source pollution, generated from wastewater treatment plants, industries, and other sources with a direct, piped discharge, is regulated by the State. Over the past several decades, channelization, encroachment of development on floodplains, draining and filling of wetlands, removal of riparian vegetation, and development or clearing of steep slopes and erodible soils has been detrimental to streams.

In 1987, DEPRM initiated a capital environmental restoration program to assess and identify water quality problems and implement design and construction of watershed restoration projects. The program is based on the County's 14 major watersheds, providing a comprehensive framework for protection and restoration of water resources. DEPRM has been recognized nationally for its stream restoration program and, with the completion of numerous projects, has made significant progress toward its objectives for watershed restoration. In the early 1990's Baltimore County developed regulations to protect water quality, streams, wetlands, floodplains, forests, and steep or highly erodible slopes from land development impacts. The County faces a challenge common to most areas experiencing urban growth: how to restore, protect, and enhance its waterways.

Stream Restoration

The U.S. EPA Mid-Atlantic Integrated Assessment program (MAIA) produced a document to share knowledge among state and local governments, regional offices, and non-governmental organizations. The document highlights DEPRM's stream restoration accomplishments. DEPRM's program incorporates project planning and design, communication and coordination with property owners, construction, and post-restoration follow-up. The program integrates state-of-the art techniques with an environmentally sensitive approach to stabilizing streams and reducing sediment loads, in turn enhancing stream morphology, ecological function, water quality, and aquatic habitat. Baltimore County responds to degraded urban streams with an adaptive natural channel design (NCD) approach that relies on the principles of fluvial geomorphology to evaluate stream flow, channel dimension, and bed and bank materials to optimize water and sediment movement and minimize erosive forces.





Physical changes to stream systems can be worse than pollutant runoff, point source discharges, or storm water management impacts. Since 1990, DEPRM has developed expertise in the restoration of destabilized stream channels. Reconstruction of channels applies the concepts of natural channel design (NCD) using natural materials (boulders and vegetation) in conjunction with the reshaping of the stream channels. When properly constructed, these restored streams are a cost-effective and attractive means to sustain physical stability, function, and habitat. Since the early 1990's, DEPRM has also maintained a physical, chemical, and biological stream monitoring program to determine ambient water quality and trends over time, assist in targeting restoration efforts, assess the effectiveness of restoration, and track progress in meeting TMDL pollutant load reduction requirements. The monitoring measures the abundance and diversity of aquatic life as indicators of stream quality and chemical constituents. Summary data from the biological monitoring indicate that there is fairly widespread impairment of aquatic organisms, even if only moderate, for most of the County's streams.

4

Agricultural Priority Preservation Areas

The protection of land for agriculture has been a key component of rural growth management in the County for over 40 years. Significant public funds have been invested in the permanent protection of cropland, pasture and woodland to maintain and foster a viable agricultural industry. This forward-looking effort by the County has become more important with the national attention on issues such as energy conservation, sustainability, and national security. Promotion of local farms can improve the quality and security of the local food supply and play a role in solving other environmental problems.

The 1989 Master Plan first designated "Agricultural Preservation Area" boundaries (now called Agricultural Priority Preservation Areas, or APPA's). These areas have been reconfirmed in subsequent plans. APPA's are based on their capability for agricultural production and the existence of agricultural operations and preserved lands.

From 1980 through 2009, more than 55,200 acres have been preserved, including 21,675 acres under the Maryland Agricultural Land Preservation Foundation Program, 4,351 acres under the Baltimore County program, 25,250 acres under the Maryland Environmental Trust, private land trusts, and Rural Legacy programs, and 3,929 acres in R.C.4 cluster conservancy areas. This cumulative preservation achievement represents about 24% of the total land area outside the URDL. Based on a 2006 study by The Conservation Fund, an additional 50,300 undeveloped, unprotected acres met agricultural program criteria. The protection of an additional 30,800 acres will be needed to meet the County's ultimate preservation goal, and the County must seek adequate funding, explore innovative purchase techniques, refine programs, and increase the acreage of donated easements. Based on preservation of 2,100 acres and loss or conversion of 870 acres per year, it is projected that the 80,000-acre goal will be met by the year 2022.

Policy: Permanently preserve at least 80,000 acres of agricultural and natural resource lands through Conservation Easements and other similar legal instruments.

Actions:

(1) Continue to seek and encourage the donation and sale of easements through the various land preservation programs.

(2) Conduct landowner outreach and public education to increase awareness of these conservation programs and garner interest in land protection.

(3) Identify and preserve parcels large enough to support normal agricultural and forestry activities.

(4) Fairly compensate farmers for loss of development rights.

(5) Monitor the Agricultural Priority Preservation Areas to ensure that at least 80% of the remaining undeveloped land is either under easement or temporarily protected by restrictive zoning (such as RC 2).

(6) Work with state and local partners to monitor and steward existing conservation easements to ensure compliance with agreements to protect the County's investments in agricultural land preservation.

Land Preservation Progress

The United States Department of Agriculture states, "Agricultural land preservation constitutes sensible resource management for sustainable agriculture". Baltimore County agrees, and further defines land preservation as an effective management tool for protecting and preserving natural and cultural resources. The County's land preservation efforts are among the most successful in the nation. This success is in part due to the strategy of protecting land in the short term through restrictive resource zoning, and conserving land for the long term through preservation easements. Perpetual easements are the only way that preservation of the rural landscapes can be guaranteed. Fair compensation to landowners is provided to maintain the land in private ownership. Additionally, preserved privately owned lands stay on the tax roll.

5

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor
Mark Belton, Secretary
Joanne Throwe, Deputy Secretary

BIONET: Biodiversity Conservation Network

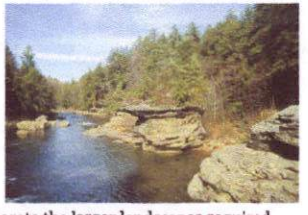
Wildlife and Heritage Service, Natural Heritage Program
January 8, 2016

Since 1980, DNR's Natural Heritage Program (NHP) has been collecting, managing, analyzing, and distributing spatial data regarding the habitats of the state's rarest plants and animals, as well as high quality and rare natural communities and other living resources of conservation concern, including:

- 1,000 Rare, Threatened or Endangered plants and animals (over 350 of these are Endangered)
- 1,500 places where Rare, Threatened or Endangered species live (called Ecologically Significant Areas)
- 200 additional animals of Greatest Conservation Need
- 200 Watch List plants
- 27 of 75 ecological communities considered Rare in Maryland

Currently, the NHP has developed a number of digital map products designed for somewhat different purposes and different target audiences. Natural Heritage Areas, Critical Area Habitat Protection Areas, Ecologically Significant Areas, and Sensitive Species Project Review Areas are examples of products developed for various protection-related needs. For example, Sensitive Species Project Review Areas are designed specifically for reviewing proposed development projects. However, our current need is for a product that better integrates our information and prioritizes Maryland's vanishing natural landscape to highlight those areas that are important to conserve the full complement of species and natural communities currently found within the State.

BioNet is a digital map (GIS shapefile) that prioritizes areas for terrestrial and freshwater biodiversity conservation. It was developed as an additional tool for the Natural Heritage Program and its conservation partners to use for proactive land conservation activities, such as targeting for acquisitions and easements, locating appropriate areas for project mitigation or habitat restoration, and planning for areas that require management to sustain dwindling species and habitats. The criteria used within BioNet primarily have a dual focus on both the most irreplaceable species and habitats, as well as on the habitats that concentrate larger numbers of rare species. In addition to focusing on vanishing species and habitats, and on high quality common habitats, the criteria also were designed to incorporate the larger landscapes required for migratory animals, population dispersal, and habitat shifts resulting from climate change.



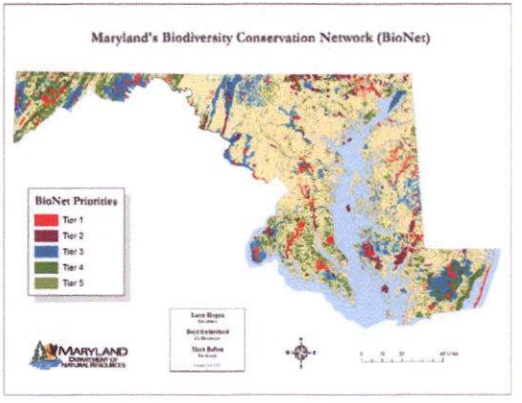
In summary, BioNet includes and prioritizes:

- Only known occurrences of species and habitats
- Globally rare species and habitats
- State rare species and habitats
- Animals of Greatest Conservation Need
- Watch List plants and indicators of high quality habitats
- Animal assemblages (e.g., colonial nesting waterbirds, forest interior species)
- Hotspots for rare species and habitats
- Intact watersheds
- Wildlife corridors and concentration areas

These areas are prioritized into a five-tiered system:

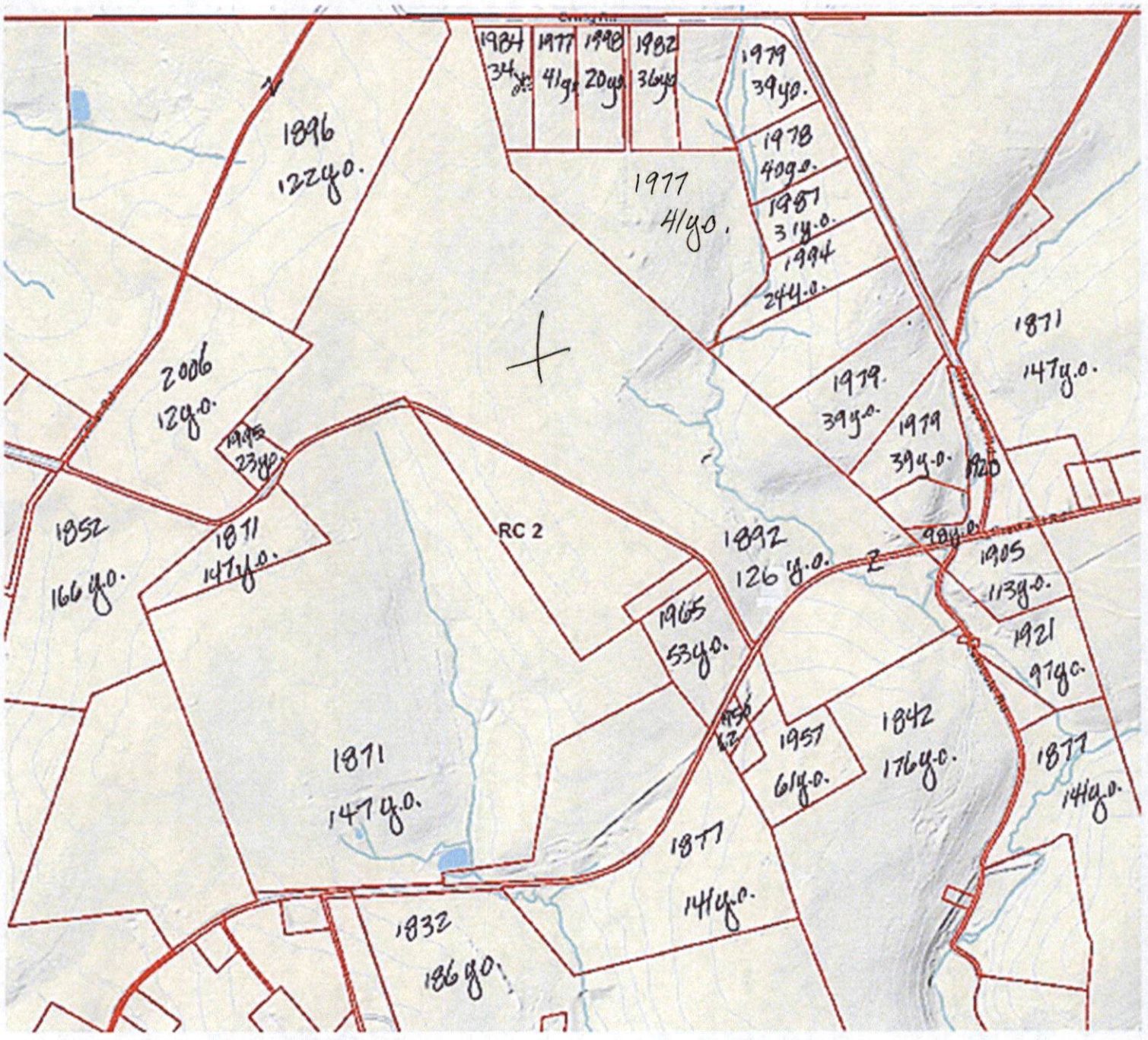
Tier 1 – Critically Significant for Biodiversity Conservation
Tier 2 – Extremely Significant for Biodiversity Conservation
Tier 3 – Highly Significant for Biodiversity Conservation
Tier 4 – Moderately Significant for Biodiversity Conservation
Tier 5 – Significant for Biodiversity Conservation

This five-tiered system was designed to capture and support the full array of biological diversity within Maryland – not just those places that are one-of-a-kind, but also the places that are needed to maintain viable populations of more common species. Keeping common species common is a goal that will provide enormous benefits to both our quality of life and our economy. We simply cannot afford to wait until herculean efforts are necessary to save species from the brink of extinction. The costs of these efforts are staggering. Therefore, even Tier 5 BioNet Areas are still significant to conserve, both for the species they directly support, as well as for maintenance of the larger fabric of our natural landscape.



Version one of BioNet is available, and updates are currently in progress. A number of data gaps exist in version one that will be addressed in future versions. Most of these data gaps involve animals of Greatest Conservation Need, Watchlist plants, and high quality common habitats. For more information, contact Lynn Davidson (lynn.davidson@maryland.gov; or 410-260-8563). Download this GIS data layer from the "Focal Areas" section of:

http://dnrweb.dnr.state.md.us/gis/data



Residences surrounding 632 Freeland Rd and dates of homes built with age of structures; Information from SDAT website.

This is an older, established community.
All but 1 of the surrounding homes are at least 20 years old (y.o.) (youngest: Anderson 12 y.o.);
11 of these are more than 100 y.o. which makes this a very unique community, unusual for that many older structures still in residential use in a rural setting.

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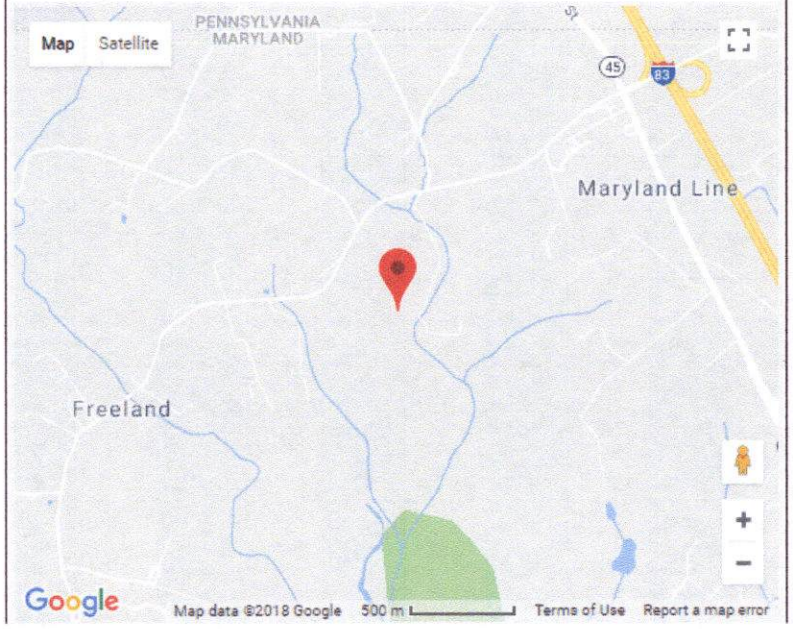
Maryland Inventory of Historic Properties

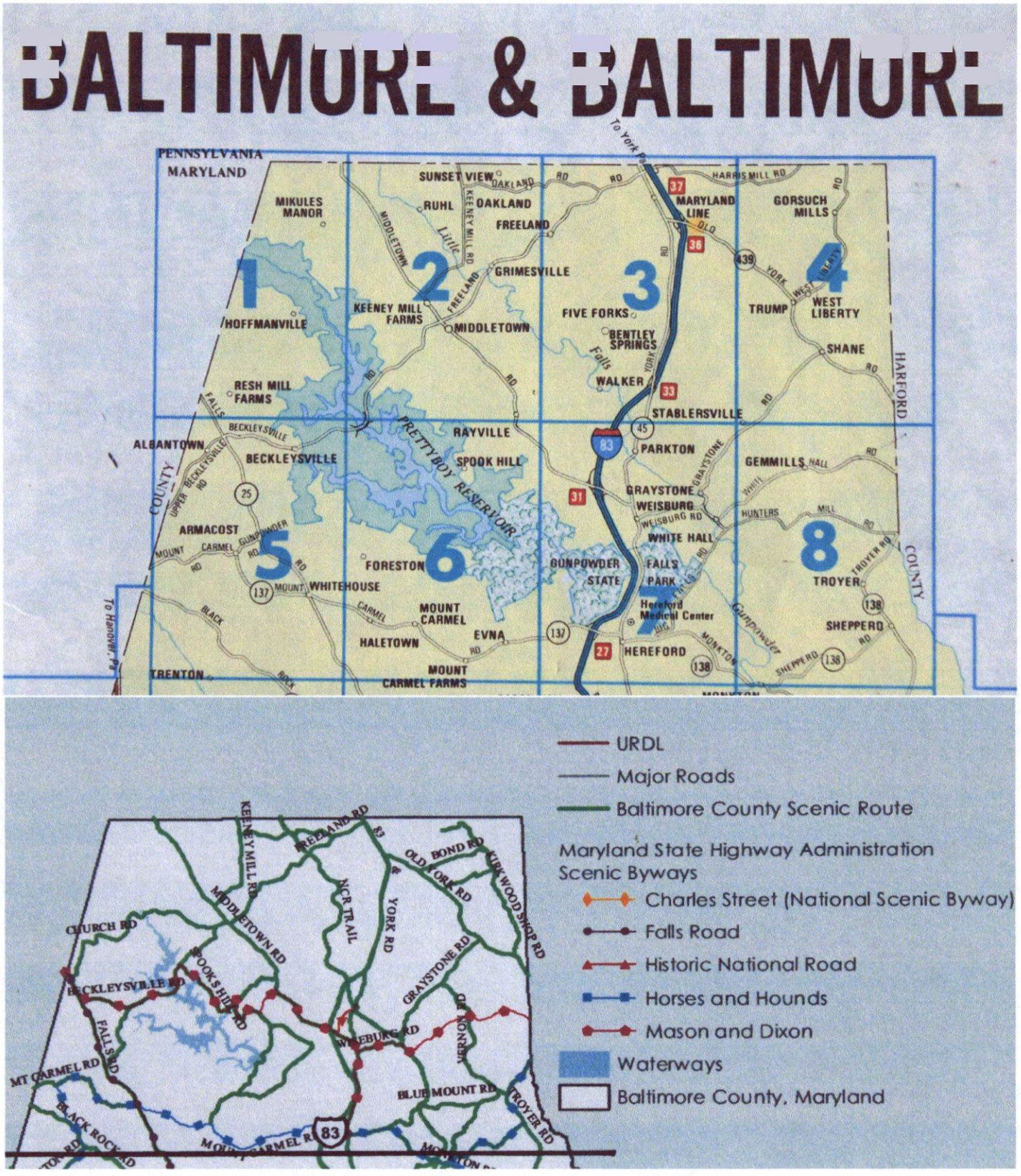
BA-182 Heathcote Mill	
Inventory No:	BA-182
Preferred Name:	Heathcote Mill
Other Name(s):	
Address:	S. Heathcote Mill Road, Freeland
County:	Baltimore County
Eligible for National Register:	Not evaluated
Document Status:	On File
Scanned Document:	BA-182.pdf





FEMA designated floodplain continues from 632 Freeland Rd (located at top of map) to neighboring Heathcote Mill, MIHP #BA-182.

BALTIMORE & BALTIMORE



Number of roads in North Balto County compared to number of Scenic Routes using ADC mapbook and Scenic Routes SHA listing (area north of Mt Carmel Rd).

Approximate # of roads at least 1 mile in length (does not include smaller development lanes and roads): 132
Approximate # of Scenic Routes within the same area: 31

Approximate % of Roads in North County that are scenic: 23%

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SUSTAINABILITY

Solar Farms Threaten Birds

Certain avian species seem to crash into large solar power arrays or get burned by the concentrated rays

By John Upton, Climate Central on August 27, 2014



Credit: *Fish & Wildlife Services*

You might never have seen an Yuma clapper rail. Fewer than 1,000 are thought to still be sloshing about in cattail-thick marshes from Mexico up to Utah and across to California. But if you were lucky enough to spot one, you might chuckle at its oversized toes.

When officials with the National Fish and Wildlife Forensics Laboratory saw one of these endangered birds last year, it was no laughing matter. It was dead. It was one of 233 birds recovered from the sites of three Californian desert solar power plants as part of a federal investigation. The laboratory's wildlife equivalents of CSI stars concluded that many of the birds had been fatally singed, broken, or otherwise fatally crippled by the facilities.

Last week, that long-dead clapper rail stoked a legal action that challenges at least a half dozen additional solar plants planned in California and Arizona.

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Conservationists say they're also worried about yellow-billed cuckoos, which might be added to the federal government's list of threatened species, and endangered southwestern willow flycatchers, though none of those birds have been found dead at any of the solar sites.

The effects of wind turbines on birds, which research suggests kill far fewer birds per megawatt hour than do fossil fuel plants, have long been a source of consternation for many environmentalists. Their bird-killing effects have been serious enough to kill and hamper some planned projects. Now, as concentrated solar farms start to sweep the globe, solar energy developers are facing similar outcries and opposition for the harm that their clean energy facilities can cause to wildlife.

The construction of solar panel farms and concentrated solar power are both booming businesses. In California, industrial-scale facilities like these are helping utilities meet a state mandate that 20 percent of electricity sold by 2017 is renewable. But if the problem of wildlife impacts festers, the growth of concentrated solar, which by one recent estimate could grow to a $9 billion worldwide industry in 2020, up from $1 billion in 2013, could be crimped by lawsuits and opposition from conservationists.

Much of the problem appears to lie in the "lake effect," in which birds and their insect prey can mistake a reflective solar facility for a water body, or spot water ponds at the site, then hone in on it. Because of the power of the lake effect, the federal investigators described such solar farms as "mega-traps" in their report.

"I strongly believe there's a way to show the birds that the PV panels are solid surfaces, not water," said Ileene Anderson, a scientist at the Center for Biological Diversity, which is preparing to sue over Yuma clapper rail mortality at solar power plants.

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The Associated Press reported last week on "streamers" at BrightSource Energy's concentrated solar plant -- a futuristic-looking facility that gamers pass as they drive through the desert between Las Vegas and Los Angeles. That's the name given to birds as their feathers ignite, mid-air, after flying through a concentrated beam of sunlight. Such hapless birds can be burned to death, killed by brute force when they crash to the ground, or eaten a predator swoops in to claim their maimed body. These are just some of the ways that large solar plants can kill birds. It's not known how many birds are being felled by the groundswell of such facilities, but the numbers are high enough to concern bird and conservation groups -- regardless of the environmental benefits of solar power.

"We can safeguard our irreplaceable wildlife, like the Yuma clapper rail, through thoughtful implementation of renewable energy projects," Anderson said.

Within days of the AP report, Anderson's group, which had obtained the federal report through a public records request, dispatched a notice of intent to sue. In the letter, an attorney for the group threatened to take the U.S. Department of the Interior, U.S. Fish & Wildlife Service, and U.S. Bureau of Land Management to court in 60 days unless the agencies agreed to more thoroughly review the potential bird impacts of other large solar power plants proposed within the Yuma clapper rail's range. The notice alleges violations of the Endangered Species Act.

The attorney cites findings from the federal investigation report, which showed that the Yuma clapper rail had been killed at First Solar's 4,400-acre Desert Sun Solar Farm in California's Riverside County. The facility uses a 550-megawatt photovoltaic array that produces clean electricity for Californian utility customers. (The group also cited a media report of another Yuma clapper rail death at a similar facility.) Birds can be killed when they smash into the facility's solar panels, the investigation concluded.

The other solar farms analyzed by the investigators were of the newfangled trough and solar power tower varieties. They included the Genesis Solar Energy Project, also in Riverside County, which uses a trough system in which parabolic mirrors focus sunrays into a tube where water boils into steam that spins a turbine to produce electricity. The mirrors pose similar threats to birds as solar panels. The third

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facility studied was the Ivanpah Solar Electric Generating System in Bernardino County, Calif., where birds can be burned as they pass through concentrated sunrays that are reflected off thousands of mirrors toward a solar power tower, where water is boiled to produce electricity-generating steam.

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The problem of bird deaths at solar power farms is a complex one. Some solar developers have been powering down bright lights that had attracted insects at night, or switching to LEDs, and using nets to keep birds at bay. But that apparently is not enough. "The diversity of birds dying at these solar facilities, and the differences among sites, suggest that there is no simple 'fix' to reduce avian mortality," the federal report states.

The report recommends improving bird- and bat-death monitoring through the use of sniffer dogs, video cameras, and daily surveys. It also lists recommendations for directly reducing avian mortality. Those recommendations include clearing vegetation around solar towers to make the area less attractive to birds, retrofitting panels and mirrors with designs that help birds realize the solar arrays are not water, suspending operations at key migration times, and preventing birds and bats from roosting and perching at the facilities. The recommendations are being considered by regulators.

The Center for Biological Diversity supports those proposed measures. It also suggests restoring bird habitat elsewhere to draw birds away from the solar facilities, which could help the rails and other species recover. And it wants the government to undertake new scientific research -- research that could offer clues for better protecting birds from solar power farms.

"We'd like the FWS to start looking at the potential problem that the Yuma clapper rail may be being attracted onto the sites," Anderson said. "These large-scale solar projects in the desert are giant experiments, and we should be learning something from them in order to avoid and minimize impacts. We're so low on the learning curve that there's a lot of unanswered questions."

Impact Of Solar Energy On Wildlife Is An Emerging Environmental Issue

By DUSTY MILLER on March 24, 2016 at 10:00 AM



As increasing numbers of renewable energy generation facilities are installed in the U.S., the realities of their operational impacts have sometimes been surprising.

While renewables in general, and solar power in particular, have been touted as generally benign with regard to environmental impacts, some solar projects that have recently been placed in service reveal that mortal risks to wildlife, and especially avian species, are likely to demand additional consideration and management. This means new mitigation efforts are now being tested and developed.

Concentrating Solar and Solar Streamers

Large concentrating solar plants use "power towers" that consist of hundreds of thousands of computer-controlled mirrors to track the sun throughout the day, reflecting the sunlight to boilers at the tops of two or three approximately 450-foot tall towers. The concentrated sunlight heats the water in the boiler pipes to create superheated steam, which is then piped to a turbine to generate power.

Birds, insects, and bats that fly through the highly concentrated, high-temperature (800 to 1,000 degrees F) solar beams – sometimes called solar flux – at concentrating solar plants have been given the name "streamers" by operators of these facilities. When the insects, birds and bats fly through these beams, they are ignited in midair, creating a plume of smoke, or streamer. The animals may be killed by the heat, by the force of falling to the ground, or by a waiting predator.

A small number sustain injuries that they can recover from when they are discovered and taken to wildlife rehabilitation facilities. Less documented, but of equal concern, are the impacts on larger birds, such as raptors, that are powerful enough to fly away from a site even after being singed or otherwise injured by the solar beams. Most solar facilities conduct monitoring for wildlife within their site boundaries, but do not generally monitor outside the fence line to keep track of the impacts to individual animals that may fly beyond the site.

This apparently unforeseen impact is alarming because of the frequency of the streamer phenomenon that has been observed – an estimated one every two minutes – by U.S. Fish and Wildlife Service (USFWS) law enforcement personnel at a large concentrated solar project in California.

Additionally, observations support the theory that the brightness and intensity of the light from large solar fields may be attracting insects even during the daytime, which in turn attracts their predators, birds and bats. Night lighting of these facilities consists of security lighting, which also attracts insects and their predators from the surrounding darker desert. The USFWS Office of Law Enforcement in a report released in April 2014 refers to the types of large-scale solar projects that cause these impacts as "mega-traps."

"Lake Effects" of Large Solar Photovoltaic Projects

Solar photovoltaic projects consist of hundreds or thousands of solar panels that convert sunlight directly into electricity. Large solar fields such as those that have been built in the last several years in Southern California and the desert Southwest can fool birds into changing flight direction, sometimes during migration, to approach them because they appear to be lakes from a distance.

Many of the birds that have been killed at these large solar sites are waterbirds, which indicates that these birds fly to solar fields and realize too late in their descent that the solar panels are not water. The waterbirds then collide with the solar panels and are

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critically wounded or killed. Some waterbirds also have great difficulty taking off from non-water surfaces, which could leave them stranded in desert areas without food, water or shelter.

Potential Mitigation

Mitigation measures for the impacts of large solar PV projects are complicated by the variety of bird and other species being affected. Some approaches being tested include turning off or replacing bright lighting at the sites with LED lights to avoid attracting insects and use of netting to exclude birds from the panel area. Other measures being explored include removing vegetation that could be attracting birds to the project area; creating patterns on the panels that attempt to visually deter birds; using predator and distress call recordings; shutting down projects during key migration times; and using roosting and perching prevention.

Creation of habitat areas located outside large solar project areas, to draw birds away from the solar projects, has also been proposed.

Specific mitigation measures to reduce the number of streamer impacts from concentrating solar projects have been more challenging. To date, regulatory measures promoted or imposed by USFWS or other agencies have been largely dependent on current experience and knowledge, which is not extensive and varies considerably depending on location.

The USFWS has under consideration several approaches, including the possibility of a permit program (perhaps similar to that for eagles) that may limit the number of injuries or fatalities allowed. Meanwhile, several interest groups have advocated suspending operations of these large concentrating solar projects until effective mitigation measures can be determined and proven. One proposed concentrating solar project in California has already been withdrawn from consideration by the California Energy Commission, at least partially because of objections by local stakeholders about the impact on wildlife.

As the industry continues to monitor the collateral effects of solar energy, mitigation solutions are being tested in project design, planning and avian avoidance measures. Remedies for existing and future solar projects will require increased collaboration between design engineers, environmental specialists, developers and owners.

Published originally on Black & Veatch Solutions.

News in Science

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Solar panel attraction deadly for insects

Jessica Marshall
Discovery News

Tuesday, 8 June 2010

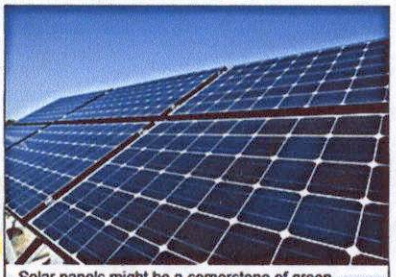
New research has found solar panels have a mesmerising, lethal attraction to certain aquatic insects, drawing them to the panels' surface and trapping them until they die.

"It's like these organisms become dazzled to death," says Dr Bruce Robertson of Michigan State University who led the study.

"It's like going to the most amazing 3D movie you've ever seen and you can't leave. They just fly and fly and fly over these surfaces, and they get exhausted and die."

The potential insect losses are important, says Robertson, because the insects provide food for fish and other aquatic species. "Aquatic insects are a fundamentally important base of the aquatic food web," he says.

The panels' attractiveness comes from the way the panels reflect light, which is similar to the way that water reflects light - only better in the eyes of the insects.



Solar panels might be a cornerstone of green energy, but new research shows that they may have a dark side (Source: bravajulia/iStockphoto)

Polarised, mesmerised

Many aquatic insects have specialised vision that can see polarised light, helping the insects find water.

When sunlight hits water, light waves that are perpendicular to the water surface are absorbed, while light waves coming in at an angle to the surface are reflected. The resulting beam of light leaving the surface is polarised, meaning that the light waves are aligned in one direction.

Many aquatic insects including mayflies and caddis flies have evolved the ability to detect polarised light, presumably as a way to seek the water sources they need for food or breeding.

But solar panels are even more alluring than water to the insects. "The solar panels attract far more insects than even water because they are polarising 100% whereas water only polarizes 60%," says Robertson.

He and colleagues compared how many insects hovered near different surfaces, including solar panels and non-polarising surfaces. The team found that the solar panels were the most attractive to the insects they studied. They published their findings in *Conservation Biology*.

"As solar panels become an increasingly large part of our energy accounting, the ecological traps associated with solar panels have the potential to become radically important in wildlife conservation," he says.

Desert attraction

"Given what we know about polarised light and about insects and about other species that respond to polarised light, this makes a whole lot of sense," says light pollution expert Associate Professor Travis Longcore of the University of Southern California in Los Angeles.

One area of particular concern is the desert, where large solar installations are planned or underway. "There's an explosion of interest in large scale development of solar, especially in the Mojave desert," Robertson said.

The results could be dramatic.

"When you think about the desert, there's almost no more rare resource than water. You might be attracting enormous numbers of organisms from miles around," he adds. "If you attract desert insects, they might attract birds or bats or desert reptiles that would try to feed on them. It's hard to know if that's a good thing or a bad thing or just a thing."

Other concerns

Longcore points out that insect attraction is one of many concerns conservationists have about big solar projects that are near or in natural lands.

"There are other impacts on habitats: changing the microclimate, providing perches for predators, and increasing the density of crows and ravens that eat the eggs of desert turtles," says Longcore. Crows and ravens move in wherever there are human disturbances, he adds.

"This is yet another reason that we should be looking at implementing solar projects in cities and in other developed areas like in parking lots and on roofs."

The good news from Robertson's study is that the lure of solar panels was dramatically reduced when white borders or grids of white strips crisscrossed the panels, dividing the panel into smaller segments. This reduced the attractiveness by 10 to 26-fold, the study found, effectively eliminating the effect.

"Many solar panels are already designed this way," says Robertson.

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Trapping light to improve solar cells, Science Online, 28 Apr 2010

New twist on solar cell design, Science Online, 15 Feb 2010

Community control 'key' to windfarms, Science Online, 25 Jul 2008

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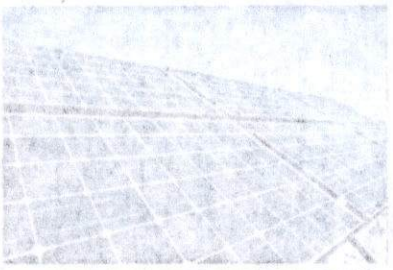
Solar panel attraction deadly for insects



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3 February 2011

Reducing the potential 'ecological trap' of solar panels

Solar panels are attractive to aquatic insects because they reflect light in a similar way to water, indicates recent research. This has ecological implications, especially if insects lay eggs on the panels. However, if panels are surrounded by white borders and divided by white grids, they are considerably less attractive to the insects.

Shiny, dark-coloured objects, such as oil lakes and glass buildings, can reflect light in such a way that they appear to be bodies of water to aquatic insects. This is because the smooth surface of water and glass polarise light, i.e. the light waves all travel on the same level, unlike sunlight which is non-polarised and light waves move in different planes. Over 300 aquatic insects use polarised light as a cue to identify lakes and rivers. Shiny dark objects, such as solar panels, could be an "ecological" trap where insects mistake them for water and mate or lay their eggs there. This could lead to increased predator attack and reproductive failure.

The study examined the attractiveness of photovoltaic solar panels and artificial surfaces of varying brightness to some aquatic insects that are known to use polarised light as a cue for water. The insects observed were mayflies, caddis flies, dolichopodids and tabanid flies.

The results demonstrated that vertical solar cells and black plastic sheeting polarised light even more than water, which suggests that these artificial surfaces could become an ecological trap. In comparison, solar panels with white frames and panels partitioned into a grid reflect weakly polarised or non-polarised light and are less likely to become traps.

Black framed solar cells were more attractive than white framed solar cells as they attracted 6.9 times more landings from mayflies than white framed versions. Dividing the surface with white tape also reduced attraction for all insects.

Mayfly captures per square metre of a shiny black surface were 16.7 times higher on a non-partitioned surface compared with a partitioned surface. For caddis flies, captures were 26.5 times higher, and for dolichopodids, captures were 10.3 times higher.

Similar, although not quite so extensive, differences were found when comparing two types of solar panel: a plain black solar panel and a white-framed solar panel that had small black cells with narrow white margins between them. Mayfly capture was 6.6 times higher on the plain black solar panel than on the white-gridded panel. Dolichopodid capture on the completely black panel was 2.7 times higher. Attraction for tabanids also seemed higher on the black panel as they touched down 8.7 times more frequently (tabanids could not be captured like the other insects studied).

The results indicate that a white grid partitioning on a solar panel will reduce or eliminate its reflection of polarised light and therefore reduce its attractiveness to aquatic insects. However, the grid also slightly reduced the surface area of the panel and therefore its performance. For the white gridded panel in this study, the loss was estimated at about 1.8 per cent.

Although the research only studied the attractiveness rather than the actual ecological impacts in terms of reproduction and predation, it indicates that caution is needed in the placement and design of panels, particularly where endangered species may be affected.

Source: Horváth, G., Blahó, M., Egri, A. *et al.* (2010) Reducing the Maladaptive Attractiveness of Solar Panels to Polarotactic Insects. *Conservation Biology*. 24(6):1644-1653.
Contact: roberbal@msu.edu
Theme(s): Biodiversity, Environmental technologies, Climate change and energy

Opinions expressed in this News Alert do not necessarily reflect those of the European Commission
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Science for Environment Policy

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Contact: [illegible]
Theme(s): Biodiversity, Environmental technologies, Climate change and energy

The Guardian

Solar panels could be a threat to aquatic insects, new research shows

Scientists urge caution after finding that insects fall into 'ecological trap' by mistaking panels for pools of water

David Adam

Sat 5 Jun 2010 19.06 EDT

Solar panels could wipe out fragile populations of insects, according to a new study that raises fresh doubts about the ecological impact of some forms of renewable energy.

Scientists have discovered that aquatic insects such as the mayfly can mistake shiny photovoltaic panels for pools of water, which they rely on to reproduce. They urge caution on the increasing use of panels until experts work out how they could affect insects and other creatures that feed on them.

"The effect of solar panels on populations of aquatic insects has not yet been researched," said Bruce Robertson, a scientist at the US Department of Energy's Great Lakes Bioenergy Research Centre in Michigan. "It is clear that the worst place to put a solar installation would be in proximity to natural lakes and rivers, where aquatic insects could easily become attracted to them."

The insects mistake the panels for water because both reflect horizontally polarised light - an optical trick in which light waves vibrate in the same direction. Many insects have evolved to detect such polarised light as a sure way to find water, particularly in arid environments.

The insects mate above the panels, which makes them vulnerable to predators, and lay their eggs on their surface, where they perish. Scientists call such natural siren songs "ecological traps". Robertson said: "There is no more severe way to degrade an organism's habitat than by creating an ecological trap. We predict traps should cause rapid population declines where solar panels are common, but it will depend on the extent of solar panels in an area and how many insects are attracted to them. It appears that, once attracted, most die trying to reproduce."

To investigate the scale of the effect, Robertson and colleagues in Hungary set up different designs of solar panels next to a creek in the Hungarian Duna-Ipoly National Park at Domorkapu. They watched insects such as mayflies and stoneflies form swarms to reproduce in the early summer evening.

Reporting their results in the journal *Conservation Biology*, the scientists say that several species of insect were drawn to the panels and laid more eggs on their surface than on water. They add: "We urge caution in the placement of solar arrays and selection of panel design, particularly where rare or endangered species may be directly or indirectly affected." Solar farms, with large areas of such panels, are rapidly spreading across Europe, Africa and the US, they say.

The scientists found that solar panels which had their shiny surface broken up with white borders or grid designs proved much less attractive to the insects. "They still polarise light, but produce it in smaller patches which is unappealing to aquatic insects that may prefer larger patches of water in which to breed," Robertson said.

"Citizens concerned about the effect of their own solar panels or collectors can use white tape to create a grid on their panels."

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The Guardian

Solar panels could be a threat to aquatic insects, new research shows

Scientists urge caution after finding that insects fall into 'ecological trap' by mistaking panels for pools of water

David Adam

Sun 3 Jun 2018 12.01 BST

Solar panels could wipe out fragile populations of insects, according to a new study that raises fresh doubts about the ecological impact of some forms of renewable energy.

Scientists have discovered that aquatic insects such as the mayfly can mistake shiny photovoltaic panels for pools of water, which they rely on to reproduce. They urge caution on the increasing use of panels until experts work out how they could affect insects and other creatures that feed on them.

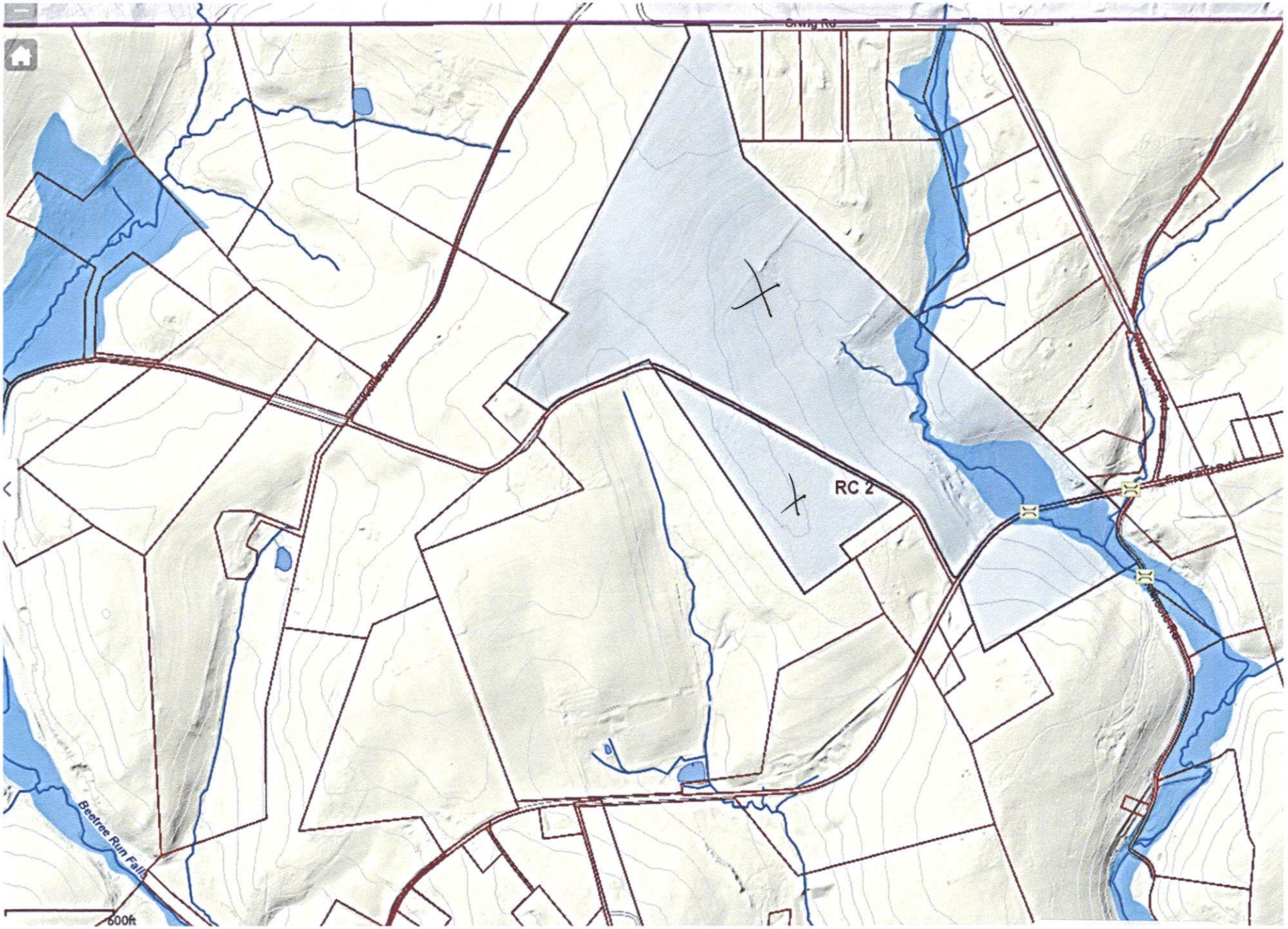
The effect of solar panels on populations of aquatic insects has not yet been researched, said Bruce Robertson, a scientist at the US Department of Energy's Great Lakes Bioenergy Research Centre in Michigan. "It is clear that the worst place to put a solar installation would be in proximity to natural lakes and rivers, where aquatic insects could easily become attracted to them."

The insects mistake the panels for water because both reflect horizontally polarised light – an optical trick in which light waves vibrate in the same direction. Many insects have evolved to detect such polarised light as a way to find water, particularly in arid environments.

The insects mate above the panels, which makes them vulnerable to predators, and lay their eggs on their surface, where they perish. Scientists call such natural errors "ecological traps". Robertson said: "There is no more sensible way to degrade an organism's habitat than by creating an ecological trap. We predict traps should cause rapid population declines where solar panels are common, but it will depend on the extent of solar panels in an area and how many insects are attracted to them. It appears that, once attracted, most die trying to reproduce."

To investigate the scale of the effect, Robertson and colleagues in Hungary set up different designs of solar panels next to a creek in the Hungarian Duna-Ipoly National Park, a UNESCO World Heritage Site. They watched insects such as mayflies and stoneflies form swarms to reproduce over the park, sometimes ovipositing.

Reporting their results in the journal Conservation Biology, the scientists say that several species of insect were drawn to the panels and laid more eggs on them than on water. They urge caution in the placement of solar arrays and selection of panel design, particularly where rare or endangered species may be directly or indirectly affected. Solar farms, with large areas of such panels, are rapidly spreading across Europe, Africa and the US, they say.



Streams, Ponds, Floodplains in area of 632 Freeland Rd.

Protestant
CBA Exhibit
26











Protestant
CBA Exhibit
27

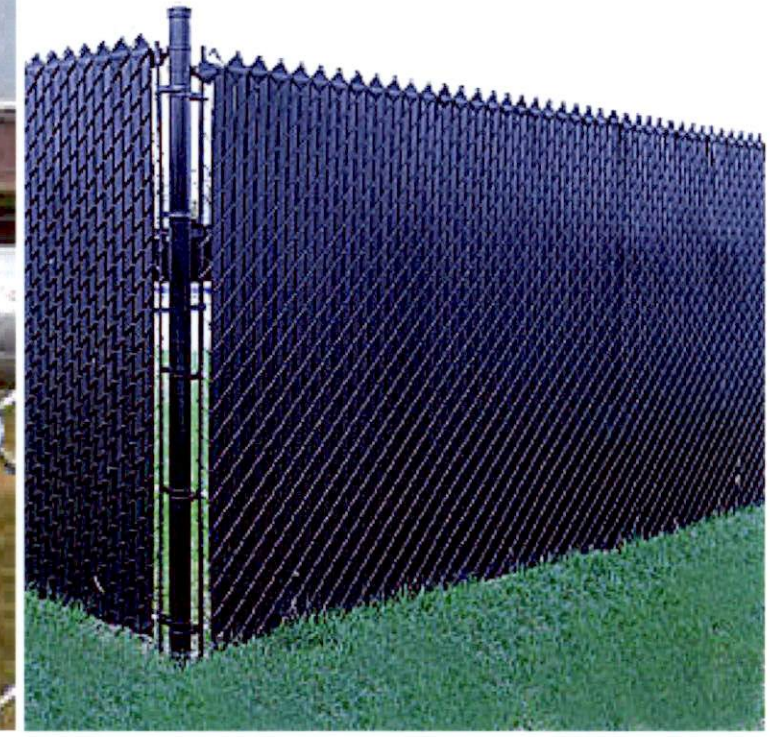
Erecting a chain link fence in open agricultural areas has a damaging impact on wildlife. Barbed wire should never be considered an acceptable addition; deer have been known to jump up to 15'. Birds and other animals are accustomed to certain flyways and migratory paths which include open fields, especially surrounded by relatively unfractured landscapes such as this property on Oakland Rd.
All these creatures are indigenous to Baltimore County.





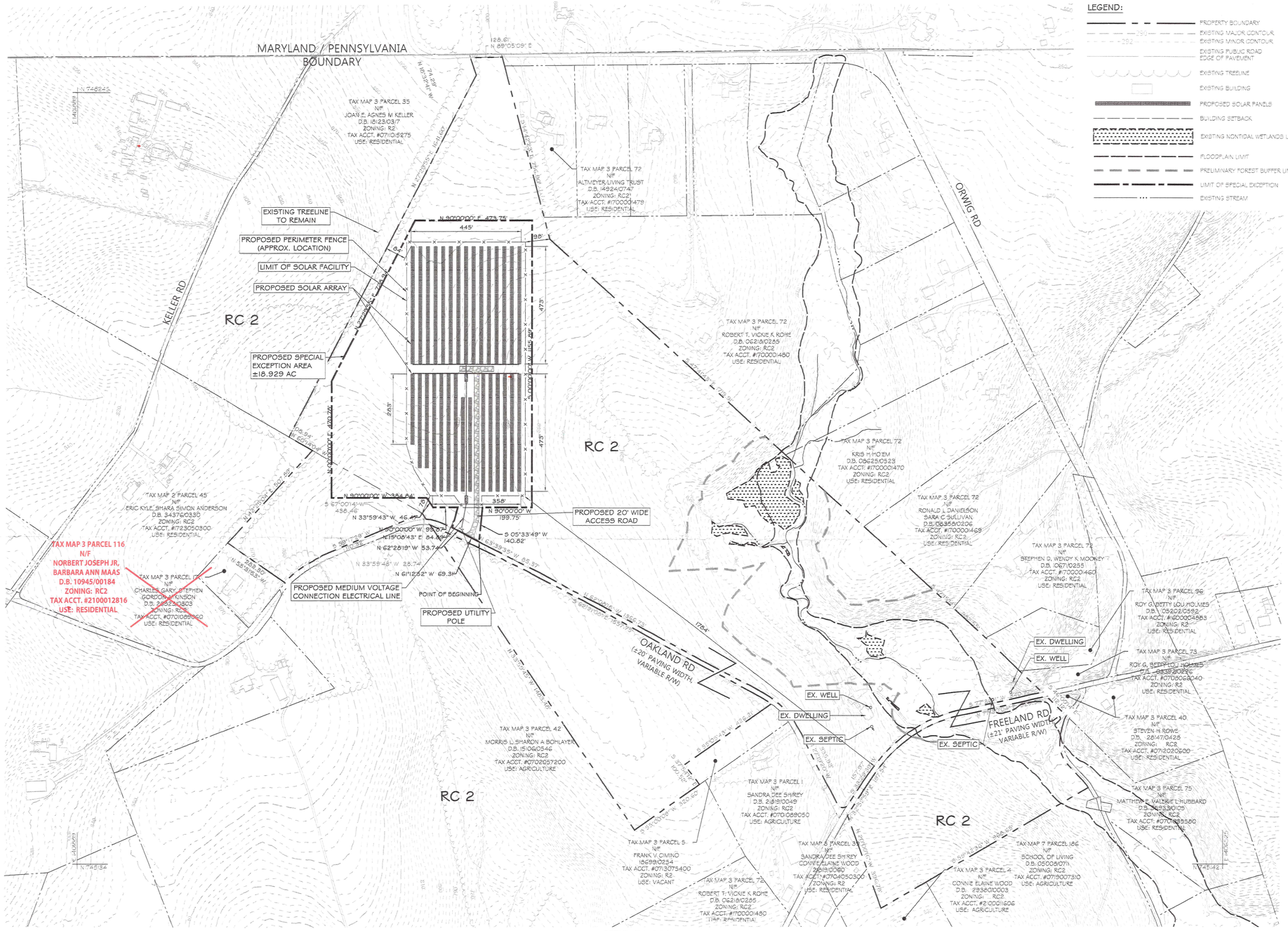






Images of chain link fencing: The 3 black fences have exposed ends of wire at top. In order to protect wildlife, fence image on bottom left is preferred for rural environments for top of fencing. Not only are ends of wire bent to avoid exposed raw ends, but positioning bar at top of fence adds an additional layer of protection.

Both images on right include plastic strips for concealing purposes, which would look industrial, not natural in this rural setting.
None of these fences would enhance or promote a scenic vista at this site, rather they would change the appearance of and promote a commercial environment that does not exist in this specific agricultural community, especially on this scenic route.



SITE PLAN
SCALE: 1"=200'

200 0 200 400
SCALE: 1" = 200'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701052060, DEED REF. #: 23823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LESSEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± SPECIAL EXCEPTION AREA ±18.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	407.00
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY 'MY NEIGHBORHOOD' WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24035C0061F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0). UNMANNED FACILITY. A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEWED COUNTY RECORDS).

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC5 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT.

DATA SOURCE:

1. THE PROPERTY LINES, TOPOGRAPHY, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION.
2. THE WETLANDS AS SHOWN WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 01/9/2018

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SITE PLAN TO ACCOMPANY SPECIAL EXCEPTION FOR A SOLAR FACILITY

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL
THIS PLAN IS SEALED FOR ZONING PURPOSES ONLY AND DOES NOT REPRESENT CONSTRUCTION.
DAVID MARK JANEY
8-9-18

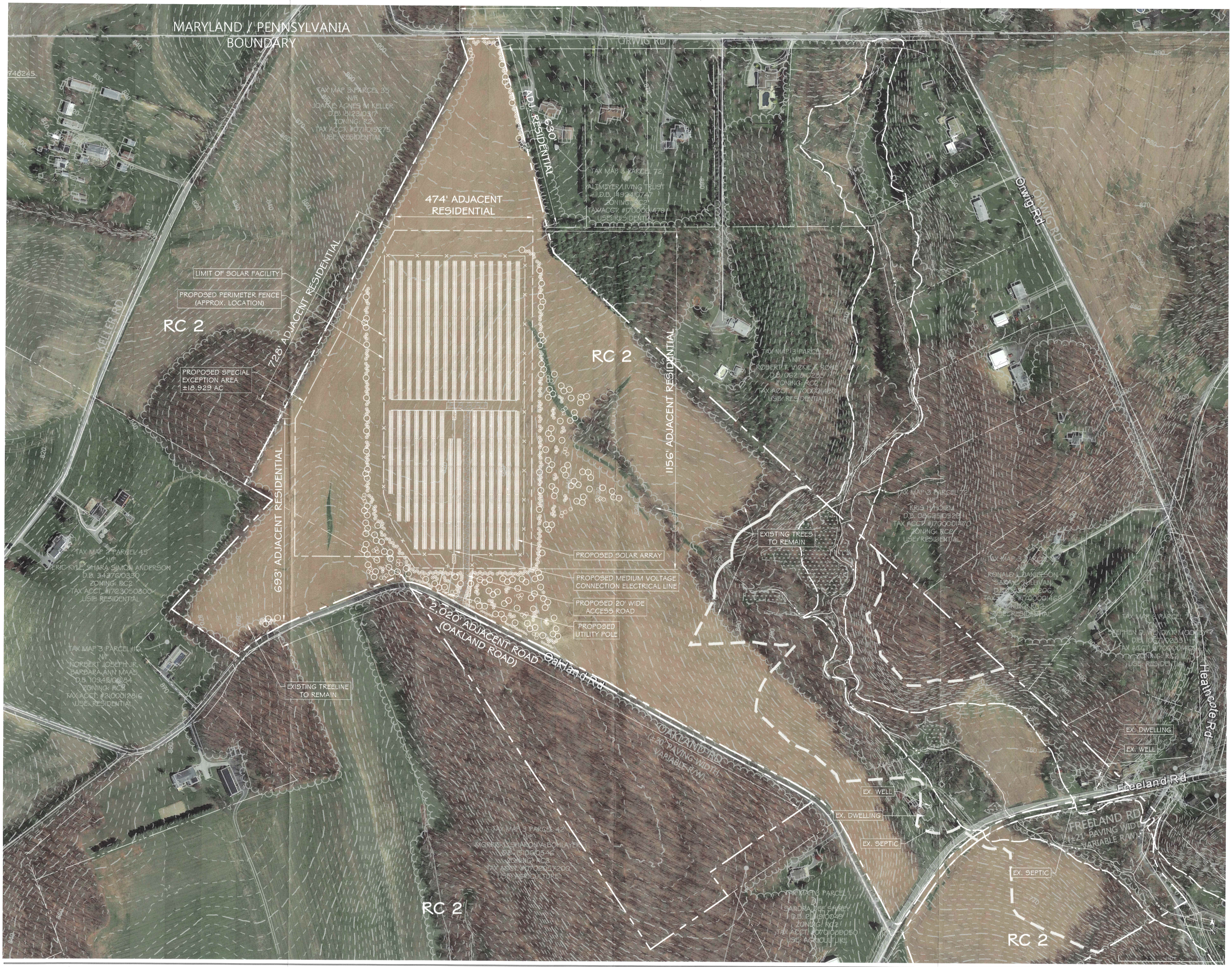
DATE	BY	REVISIONS

ISSUE DATES			
REVIEW:	2/9/18	BASE:	
BID:		DRAWN:	CHP
PERMIT:		DESIGNED:	MJK/EJC
CONSTRUCTION:		CHECKED BY:	
SCALE:	1" = 200'	DATE CHECKED:	
PROJECT NO.:	16046	DRAWING:	1 of 1

PETITIONER'S EXHIBIT 1

CASE #2018-0194-X

A:\CAD\ENGR\DWG\XDWGS\CAD FILES\SHEET FILES\ENGR_SP01.DWG Fri, Feb 02, 2018



SASSAFRAS SOLAR
632 Freeland Rd

AERIAL WITH SCHEMATIC PLAN

PETITIONER'S EXHIBIT 2

3/30/2018

DAFT McCUNE WALKER



OVERALL PROPERTY PLANTING PLAN

SCALE: 1"=200'

200 0 200 400
SCALE: 1" = 200'

LANDSCAPING REQUIREMENTS			
KEY	LANDSCAPING TABULATION	LINEAR FEET (LF.)	PLANTING UNITS (PU.)
A	ADJACENT ROAD @ 1:40 PU. PER LF.	2,370 LF.	59.3 PU.
	OAKLAND ROAD (SCENIC ROAD)	(2,020 LF.)	(50.5 PU.)
	ORWIG ROAD	(350 LF.)	(8.75 PU.)
B	ADJACENT RESIDENTIAL USE @ 1:15 PU. PER LF.	3,681 LF.	245.5 PU.
	WEST (ATKINSON, ANDERSON, KELLER PROPERTIES)	(1,421 LF.)	(94.8 PU.)
	NORTH (KELLER, ALTMEYER PROPERTIES)	(1,104 LF.)	(73.6 PU.)
	EAST (ALTMEYER, ROHE, HOIEM PROPERTIES)	(1,156 LF.)	(77.1 PU.)
	TOTAL PLANTING UNITS REQUIRED		304.8 PU.

LANDSCAPING PROVIDED	QUANTITY	PLANTING UNITS (PU.)
MAJOR DECIDUOUS TREES	157	157
EVERGREEN TREES	330	165
MINOR DECIDUOUS TREES	55	27.5
SHRUBS	80	16
TOTAL PLANTING UNITS PROVIDED		365.5 PU.

LANDSCAPE PLAN NOTES:

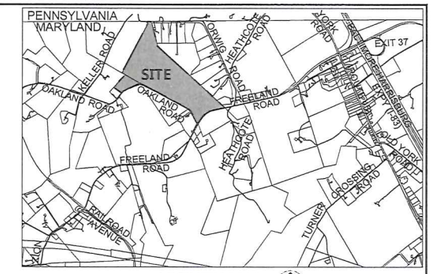
1. EXISTING TREES TO REMAIN TO THE EAST OF THE SPECIAL EXCEPTION AREA ARE NOT BEING SHOWN TO SUPPLEMENT SCREENING REQUIREMENTS FOR RESIDENTIAL PROPERTIES ALONG THE EAST BOUNDARY TO ENSURE AN ADEQUATE BUFFER IS PROVIDED FROM SURROUNDING PROPERTIES AND PUBLIC RIGHTS OF WAY.
2. ALL PROPOSED PLANTS ALONG THE ENTIRE SITE SHALL BE LOCATED AS NOT TO DISTURB EXISTING VEGETATION TO REMAIN.
3. OAKLAND ROAD IS DESIGNATED AS A SCENIC ROUTE, AND PROPOSED SCREENING ALONG THIS ROAD AND THE SOUTHERN PORTION OF THE SITE HAS BEEN DESIGNED ACCORDING TO THE REQUIREMENTS OF SECTION 32-4-244(e), BALTIMORE COUNTY DEVELOPMENT REGULATIONS.

LEGEND:

- PROPERTY BOUNDARY
- 290 EXISTING MAJOR CONTOUR
- 292 EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE (TO REMAIN)
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM
- PROPOSED EVERGREEN TREE / SHRUB
- PROPOSED DECIDUOUS TREE / SHRUB
- PROPOSED NATIVE POLLINATOR HABITAT 15% OF TOTAL AREA, LOCATION TBD

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATIO: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC6 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701089060, DEED REF. #: 26823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LESSEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	93.46 AC ± (SDAT), 74.622 AC (GIS) SPECIAL EXCEPTION AREA ±18.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	407.00
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY 'MY NEIGHBORHOOD' WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24013C0060F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY. A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEW).

DATA SOURCE:

1. THE PROPERTY LINES, TOPOGRAPHY, FEMA MAPPED FLOODPLAINS, SOILS, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION, SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY (2018).
2. THE NON-TIDAL WETLANDS, STEEP SLOPES, AND BUFFERS AS SHOWN, WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 04/12/2018.

DRC #042418 C CASE #2018-0194-X

DMW
DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SCHEMATIC LANDSCAPE PLAN

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL

DATE	BY	REVISIONS

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____

Schematic Landscape Plan Certification Form

This Schematic Landscape Plan is sealed by a landscape architect and certified by my signature below as being in accordance with all county agency landscape architectural comments.

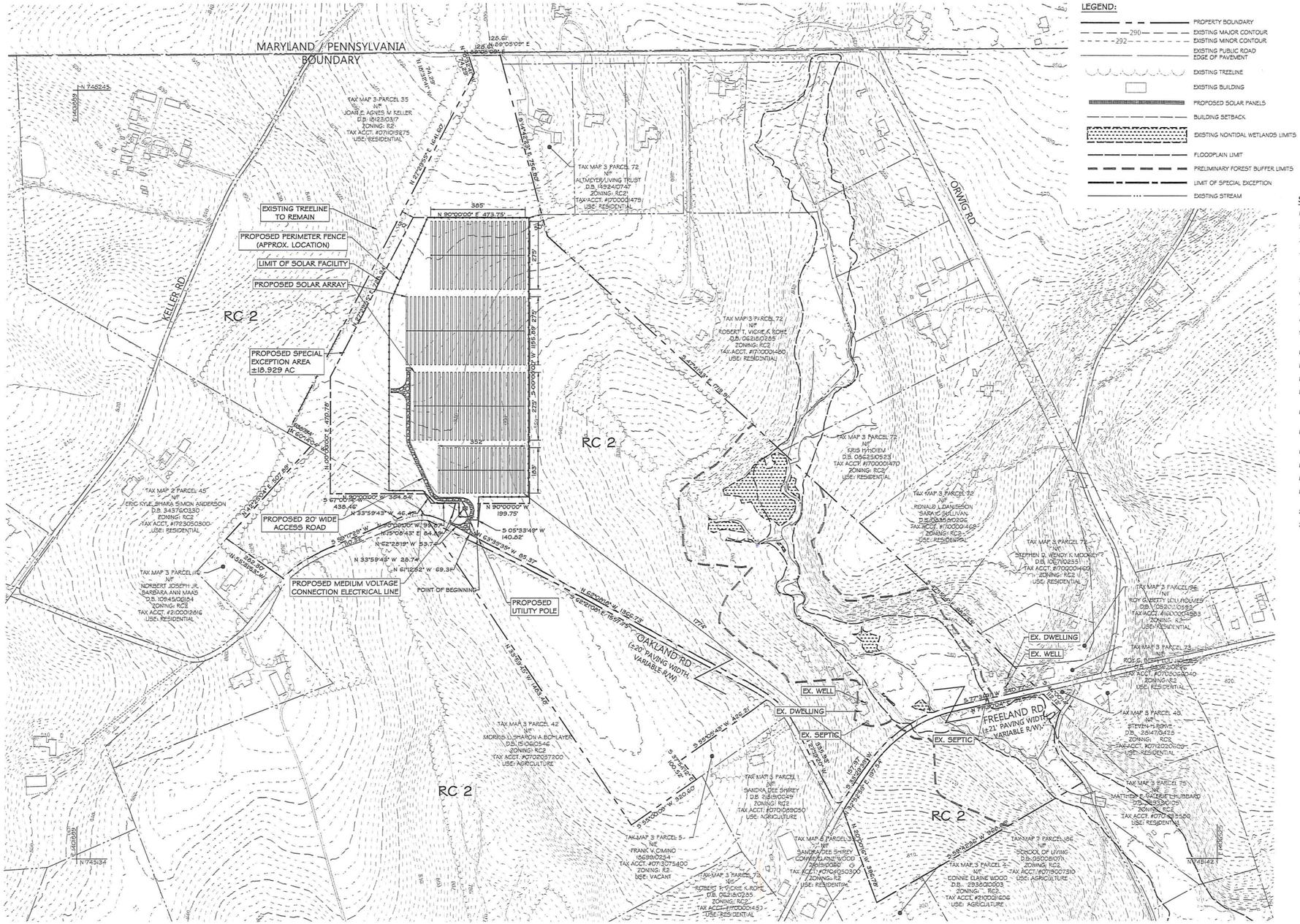
Applicant Signature Date Print Name

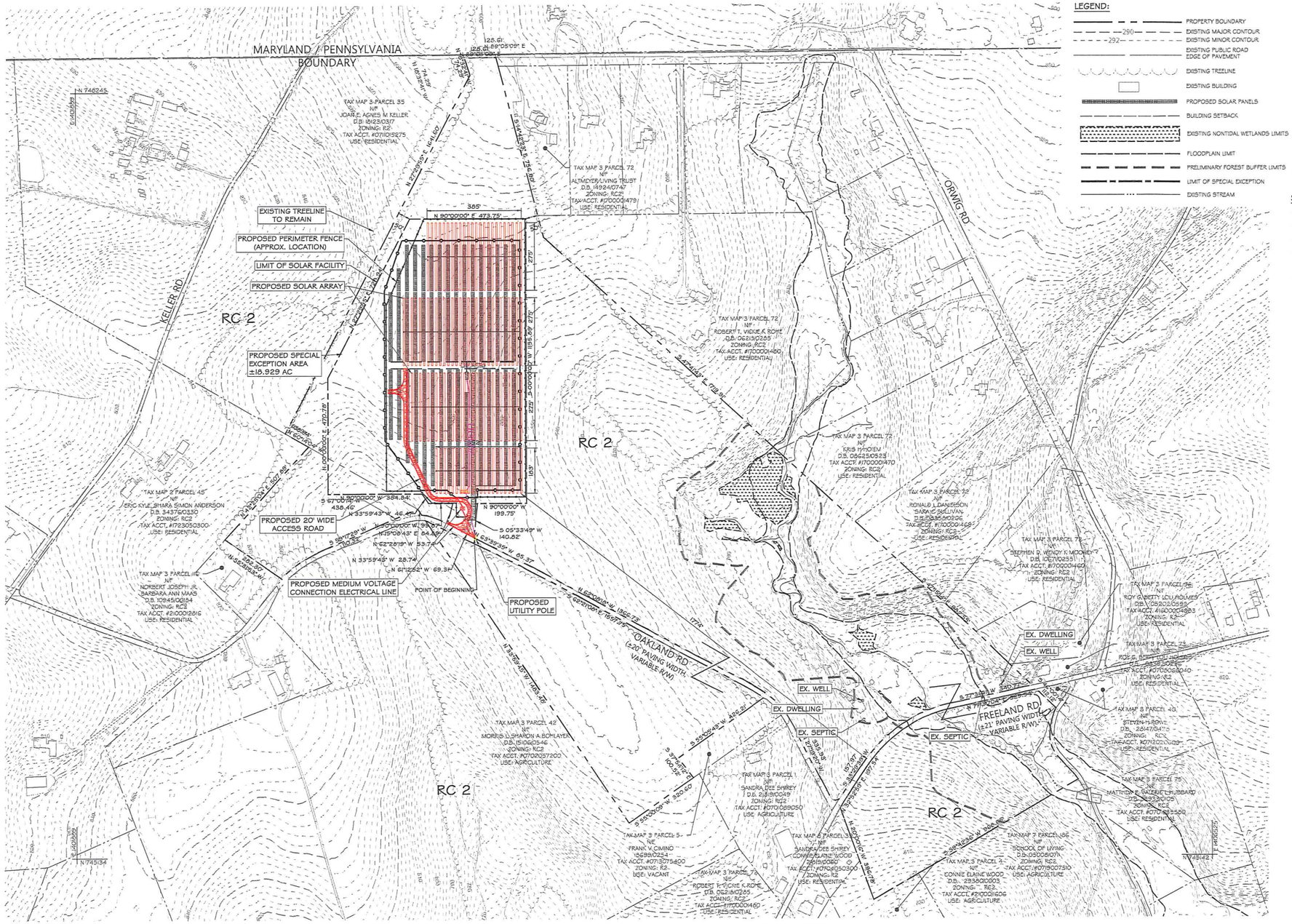
Mailing Address (if not already on plan)

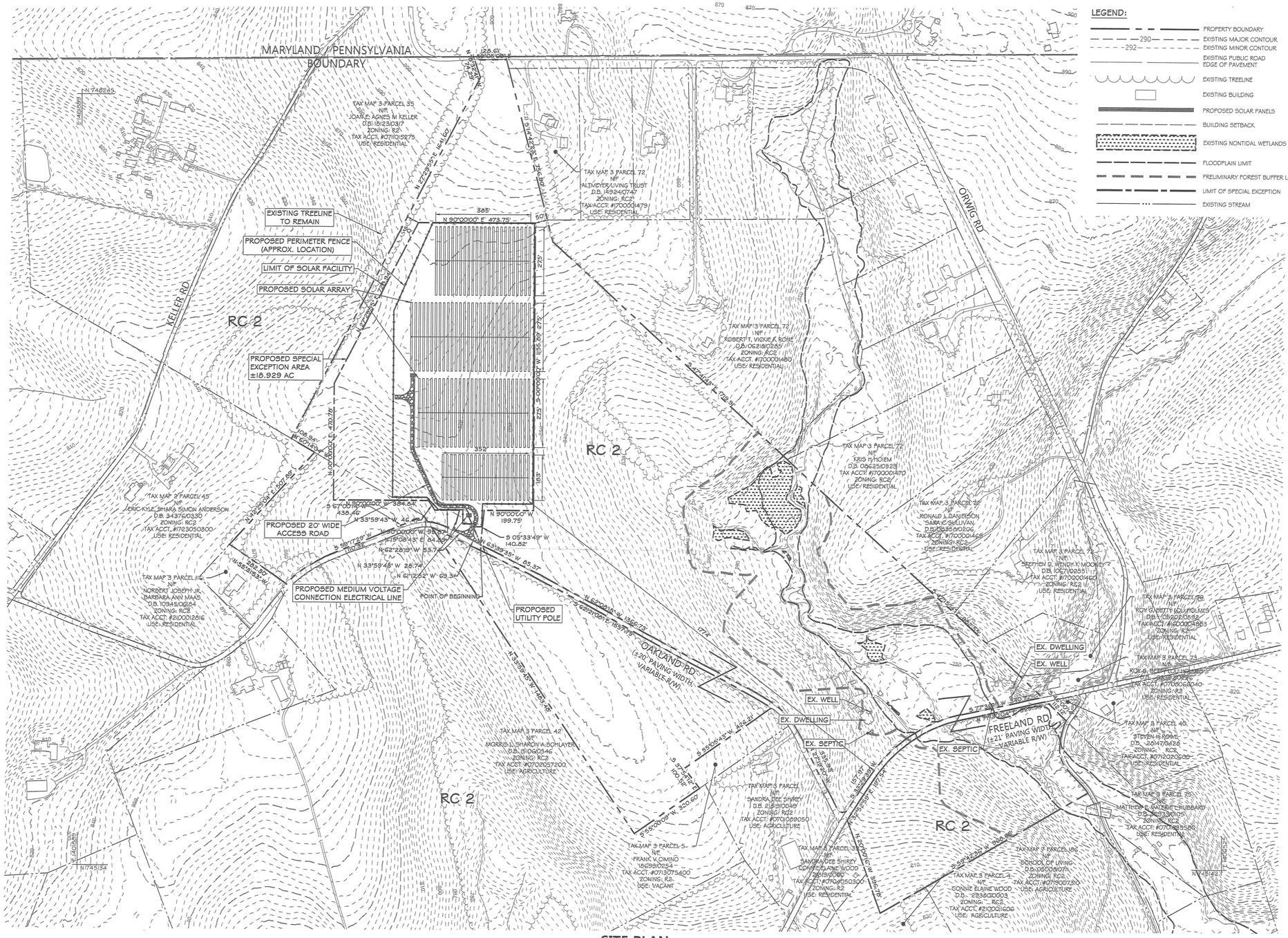
ISSUE DATES		BASE:	
REVIEW:	7/17/18	DRAWN:	JAD
BID:		DESIGNED:	JAD
PERMIT:		CHECKED BY:	
CONSTRUCTION:		DATE CHECKED:	
SCALE:	1" = 200'	DRAWING:	1 of 4
PROJECT NO.:	16046		

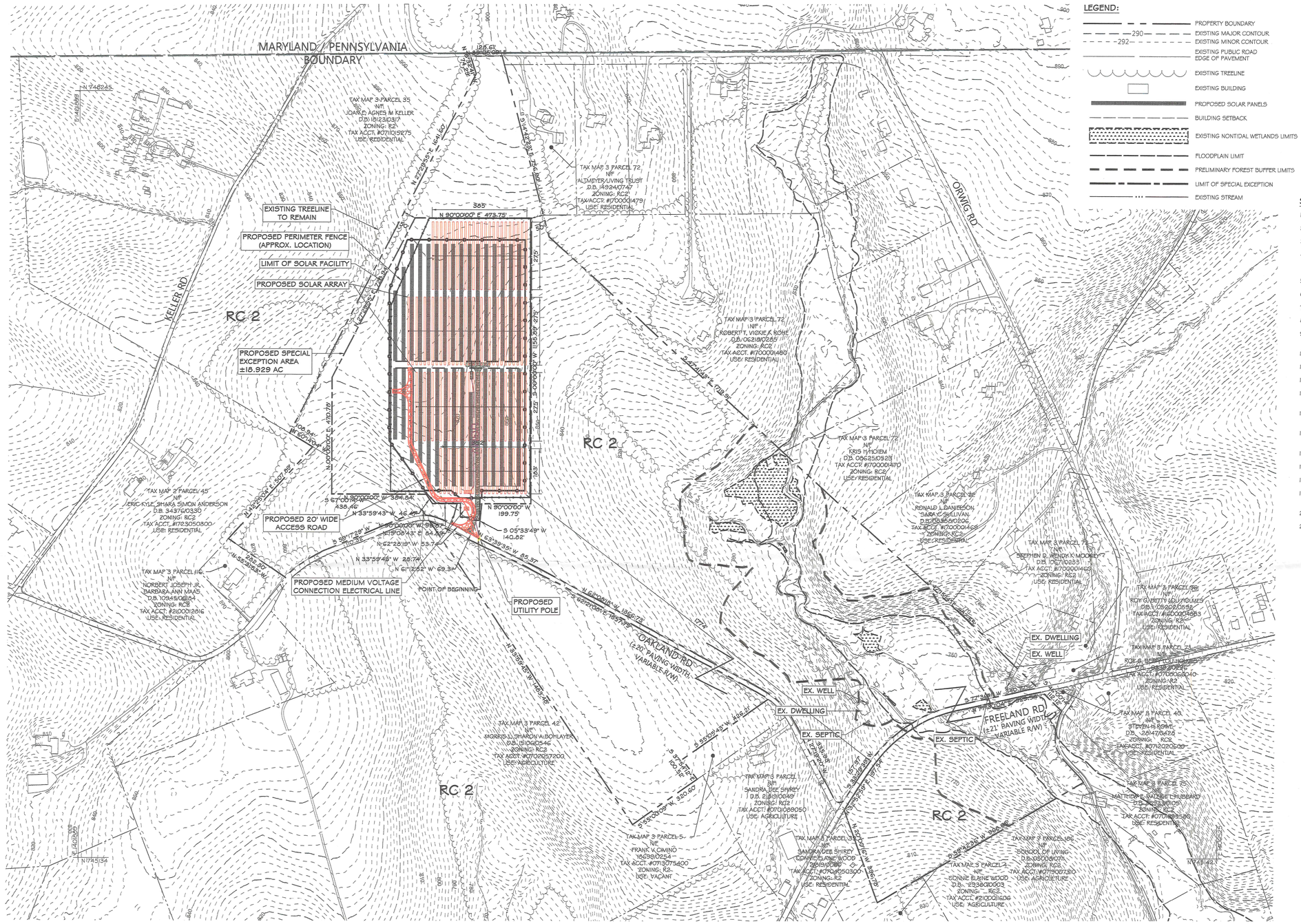
Petitioner
CBA Exhibit
2

AMG16606\ACDWG\RCAD FILES\WORKING\16046_LAYOUT.DWG TIFIL JUL 19, 2018


MARYLAND / PENNSYLVANIA BOUNDARY
N 746245
TAX MAP 3 PARCEL 35
NF
JOAN E. AGNES M KELLER
D.B. 18123/0317
ZONING: RC2
TAX ACCT. #2710015275
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
ALTMEYER LIVING TRUST
D.B. 11924/0747
ZONING: RC2
TAX ACCT. #1700001479
USE: RESIDENTIAL
EXISTING TREELINE TO REMAIN
PROPOSED PERIMETER FENCE (APPROX. LOCATION)
LIMIT OF SOLAR FACILITY
PROPOSED SOLAR ARRAY
PROPOSED SPECIAL EXCEPTION AREA ±18.929 AC
KELLER RD
RC 2
ORWIG RD
TAX MAP 3 PARCEL 72
NF
ROBERT T. VICKIE A. ROHE
D.B. 06216/0285
ZONING: RC2
TAX ACCT. #1700001480
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
KRIS HYHOEM
D.B. 09635/0523
TAX ACCT. #1700001470
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
RONALD J. DAVIDSSON
SARA K. SULLIVAN
D.B. 03355/00206
TAX ACCT. #1700001468
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
STEPHEN D. WENDY K. MOONEY
D.B. 10570/00351
TAX ACCT. #1700001460
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 95
NF
ROY GWERTZ LOU HOLMES
D.B. 10820/01485
TAX ACCT. #1700004583
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 23
NF
ROY D. BISHOP LOU HOLMES
D.B. 2853/0
TAX ACCT. #0703036040
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 40
NF
STEVEN S. ROWE
D.B. 26417/0425
ZONING: RC2
TAX ACCT. #0712030400
USE: RESIDENTIAL
TAX MAP 3 PARCEL 75
NF
MATTHEW P. KATERIE L. HUBBARD
D.B. 29933/0125
ZONING: RC2
TAX ACCT. #0712035500
USE: RESIDENTIAL
TAX MAP 2 PARCEL 45
NF
ERIC KYLE SHARA SIMON ANDERSON
D.B. 34370/0330
ZONING: RC2
TAX ACCT. #1793050300
USE: RESIDENTIAL
PROPOSED 20' WIDE ACCESS ROAD
TAX MAP 3 PARCEL 116
NF
NORBERT JOSEPH JR. BARBARA ANN MAAS
D.B. 10845/00184
ZONING: RC2
TAX ACCT. #2100012616
USE: RESIDENTIAL
PROPOSED MEDIUM VOLTAGE CONNECTION ELECTRICAL LINE
POINT OF BEGINNING
PROPOSED UTILITY POLE
OAKLAND RD (±20' PAVING WIDTH VARIABLE R/W)
TAX MAP 3 PARCEL 42
NF
MORRIS L. SHARON A. BOHLAYER
D.B. 15106/0546
ZONING: RC2
TAX ACCT. #0703037200
USE: AGRICULTURE
TAX MAP 3 PARCEL 1
NF
SANDRA LEE SHIREY
D.B. 21319/0049
ZONING: RC2
TAX ACCT. #0700089050
USE: AGRICULTURE
TAX MAP 3 PARCEL 5
NF
FRANK X. OMINO
D.B. 18698/0254
TAX ACCT. #0713075400
ZONING: RC2
USE: VACANT
TAX MAP 3 PARCEL 73
NF
ROBERT T. VICKIE K. ROHE
D.B. 06216/0285
ZONING: RC2
TAX ACCT. #1700001453
USE: RESIDENTIAL
TAX MAP 3 PARCEL 3
NF
SANDRA LEE SHIREY
CONNIE ELAINE WOOD
29518/00080
TAX ACCT. #0700005300
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 2
NF
CONNIE ELAINE WOOD
D.B. 29518/00003
ZONING: RC2
TAX ACCT. #2100011606
USE: AGRICULTURE
TAX MAP 7 PARCEL 166
NF
SCHOOL OF LIVING
D.B. 03500/00171
ZONING: RC2
TAX ACCT. #0719007310
USE: AGRICULTURE
EX. DWELLING
EX. WELL
EX. SEPTIC
FREELAND RD (±21' PAVING WIDTH VARIABLE R/W)
N 90°00'00" E 473.75'
S 90°00'00" W 384.84'
N 90°00'00" W 199.75'
S 05°33'48" W 140.82'
S 63°32'25" W 85.37'
N 33°59'43" W 46.42'
N 33°59'43" W 28.74'
N 61°12'52" W 69.38'
N 62°01'01" E 1977.45'
N 62°01'01" E 1366.73'
S 47°58'45" W 1188.78'
S 34°00'00" W 320.60'
N 40°00'00" E 470.79'
N 12°59'00" E 1607.98'
S 27°08'45" W 1496.21'
S 37°37'12" W 1001.22'
S 34°00'00" W 1496.21'
S 34°00'00" W 1496.21'
S 27°08'45" W 1496.21'
N 40°00'00" E 1496.21'
S 34°00'00" W 1496.21'
S 27°08'45" W 1496.21'
S 37°37'12" W 1001.22'
N 40°00'00" E 1496.21'
S 34°00'00" W 1496.21'
S 27°08'45" W 1496.21


MARYLAND / PENNSYLVANIA BOUNDARY
TAX MAP 3 PARCEL 35
NF
JOAN E. AGNES M KELLER
D.B. 15123/0317
ZONING: RC2
TAX ACCT. #2100019275
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
ALTMEYER LIVING TRUST
D.B. 14924/0747
ZONING: RC2
TAX ACCT. #7000001479
USE: RESIDENTIAL
EXISTING TREELINE TO REMAIN
PROPOSED PERIMETER FENCE (APPROX. LOCATION)
LIMIT OF SOLAR FACILITY
PROPOSED SOLAR ARRAY
PROPOSED SPECIAL EXCEPTION AREA ±18.929 AC
PROPOSED 20' WIDE ACCESS ROAD
PROPOSED MEDIUM VOLTAGE CONNECTION ELECTRICAL LINE
PROPOSED UTILITY POLE
POINT OF BEGINNING
KELLER RD
ORWIG RD
OAKLAND RD (±20' PAVING WIDTH - VARIABLE R/W)
FREELAND RD (±21' PAVING WIDTH - VARIABLE R/W)
RC 2
TAX MAP 3 PARCEL 72
NF
ROBERT T. VICKIE K ROHE
D.B. 06215/0255
ZONING: RC2
TAX ACCT. #7000001480
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
KRIS HYDEN
D.B. 08625/0523
TAX ACCT. #7000001470
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
RONALD L DANIELSON
SARA C SULLIVAN
D.B. 03935/00236
TAX ACCT. #7000001468
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
NF
STEPHEN D. MCCOY K MOONEY
D.B. 06270/0255
TAX ACCT. #7000001460
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 45
NF
ERIC KYLE, SHARA SIMON ANDERSON
D.B. 34376/0330
ZONING: RC2
TAX ACCT. #7123050300
USE: RESIDENTIAL
TAX MAP 3 PARCEL 110
NF
NORBERT JOSEPH JR.
BARBARA ANN MAAS
D.B. 10945/00154
ZONING: RC2
TAX ACCT. #2100012816
USE: RESIDENTIAL
TAX MAP 3 PARCEL 42
NF
MORRIS L. SHARON A. BOHLAYER
D.B. 15106/0546
ZONING: RC2
TAX ACCT. #0702037200
USE: AGRICULTURE
TAX MAP 3 PARCEL 5
NF
FRANK V. CIMINO
D.B. 16899/0254
ZONING: RC2
TAX ACCT. #0713075400
USE: VACANT
TAX MAP 3 PARCEL 70
NF
ROBERT T. VICKIE K. ROHE
D.B. 06215/0255
ZONING: RC2
TAX ACCT. #7000001460
USE: RESIDENTIAL
TAX MAP 3 PARCEL 1
NF
SANDRA DEE SHIREY
D.B. 21830/0457
ZONING: RC2
TAX ACCT #0702028050
USE: AGRICULTURE
TAX MAP 3 PARCEL 1
NF
SANDRA DEE SHIREY
CONNIE ELAINE WOOD
D.B. 06191/0080
TAX ACCT. #0702030500
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 4
NF
CONNIE ELAINE WOOD
D.B. 2938/00303
ZONING: RC2
TAX ACCT. #2100011606
USE: AGRICULTURE
TAX MAP 3 PARCEL 66
NF
SCHOOL OF LIVING
D.B. 03005/0071
ZONING: RC2
TAX ACCT. #0713027310
USE: AGRICULTURE
TAX MAP 3 PARCEL 73
NF
ROY G. BETTY LOU HOLMES
D.B. 10920/03551
TAX ACCT. #1400004883
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 73
NF
ROY G. BETTY LOU HOLMES
D.B. 10920/03551
TAX ACCT. #0702003040
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 40
NF
STEVEN S ROHR
D.B. 26147/0417
ZONING: RC2
TAX ACCT. #0712021000
USE: RESIDENTIAL
TAX MAP 3 PARCEL 75
NF
MATTHEW P. VALERIE L HUBBARD
D.B. 29333/0105
ZONING: RC2
TAX ACCT. #0702033500
USE: RESIDENTIAL
EX. DWELLING
EX. WELL
EX. SEPTIC
N 746245
N 745134
N 744142
N 744637
N 744637
N 745134
N 744142
N 90°00'00" E 473.75'
N 90°00'00" W 384.84'
N 90°00'00" W 199.75'
S 67°06'08" W 438.46'
S 05°33'49" W 140.82'
N 33°59'43" W 46.41'
N 33°59'43" W 28.74'
N 61°12'52" W 69.31'
N 90°00'00" W 98.57'
N 25°08'43" E 84.38'
N 62°28'19" W 59.74'
S 61°12'52" W 65.37'
S 61°12'52" W 1366.23'
S 67°06'08" E 164.19


MARYLAND / PENNSYLVANIA BOUNDARY
TAX MAP 3 PARCEL 35
N/F
JOAN C. AGNES M KELLER
D.B. 18123/0317
ZONING: RC2
TAX ACCT. #0701019275
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
ALTMEYER LIVING TRUST
D.B. 14924/0747
ZONING: RC2
TAX/ACCT #7000001479
USE: RESIDENTIAL
EXISTING TREELINE TO REMAIN
PROPOSED PERIMETER FENCE (APPROX. LOCATION)
LIMIT OF SOLAR FACILITY
PROPOSED SOLAR ARRAY
PROPOSED SPECIAL EXCEPTION AREA ±18.929 AC
KELLER RD
RC 2
ORWIG RD
TAX MAP 3 PARCEL 72
N/F
ROBERT T. VICKIE K. ROSE
D.B. 06218/0265
ZONING: RC2
TAX ACCT. #7000001480
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
KRIS HYDEN
D.B. 08625/0328
TAX ACCT. #7000001470
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
RONALD L DANIELSON
SARA C SULLIVAN
D.B. 03535/0206
TAX ACCT. #7000001468
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
STEPHEN D. WENDY K MOONEY
D.B. 05770/0351
TAX ACCT. #7000001460
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
KOW G. BETTY LOU HOUX
D.B. 10620/0552
TAX ACCT. #1600004583
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 73
N/F
KOW G. BETTY LOU HOUX
D.B. 10620/0552
TAX ACCT. #0706060040
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 40
N/F
STEVEN H ROHR
D.B. 26147/0426
ZONING: RC2
TAX ACCT. #0712020609
USE: RESIDENTIAL
TAX MAP 3 PARCEL 75
N/F
MATTHEW P. WALKER HUBBARD
D.B. 16338/0025
ZONING: RC2
TAX ACCT. #0706033590
USE: RESIDENTIAL
TAX MAP 3 PARCEL 2
N/F
CONNIE ELAINE WOOD
D.B. 2938/0003
ZONING: RC2
TAX ACCT. #2100011606
USE: AGRICULTURE
TAX MAP 3 PARCEL 166
N/F
SCHOOL OF LIVING
D.B. 05006/0071
ZONING: RC2
TAX ACCT. #0719007310
USE: AGRICULTURE
TAX MAP 3 PARCEL 42
N/F
MORRIS L. SHARON A. BOHLAYER
D.B. 15106/0546
ZONING: RC2
TAX ACCT. #0702057200
USE: AGRICULTURE
TAX MAP 3 PARCEL 1
N/F
SANDRA DEE SHIREY
D.B. 2131/0046
ZONING: RC2
TAX ACCT. #0710088050
USE: AGRICULTURE
TAX MAP 3 PARCEL 3
N/F
SANDRA DEE SHIREY
CONNIE ELAINE WOOD
D.B. 2131/0080
TAX ACCT. #0702050300
ZONING: R2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 5
N/F
FRANK W. CIMINO
16639/0254
TAX ACCT. #0713075400
ZONING: R2
USE: VACANT
TAX MAP 2 PARCEL 45
N/F
ERIC KYLE SHARA SIMON ANDERSON
D.B. 34376/0330
ZONING: RC2
TAX ACCT. #1723050300
USE: RESIDENTIAL
TAX MAP 3 PARCEL 116
N/F
NORBERT JOSEPH JR.
BARBARA ANN MAAS
D.B. 10945/00154
ZONING: RC2
TAX ACCT. #2100012816
USE: RESIDENTIAL
PROPOSED 20' WIDE ACCESS ROAD
PROPOSED MEDIUM VOLTAGE CONNECTION ELECTRICAL LINE
PROPOSED UTILITY POLE
POINT OF BEGINNING
OAKLAND RD (±20' PAVING WIDTH - VARIABLE R/W)
FREELAND RD (±21' PAVING WIDTH - VARIABLE R/W)
EX. DWELLING
EX. WELL
EX. SEPTIC
EX. WELL
EX. DWELLING
EX. SEPTIC
385'
N 90°00'00" E 473.75'
352'
S 67°08'40" W 384.45'
N 90°00'00" W 199.75'
N 33°59'43" W 46.49'
N 33°59'43" W 38.21'
S 05°33'49" W 140.52'
N 62°22'19" W 53.74'
N 33°59'43" W 28.74'
N 61°12'52" W 69.34'
S 62°20'01" W 1926.73'
N 33°59'43" W 1785.78'
S 55°58'43" W 486.81'
S 55°58'43" W 1071.54'
S 55°00'00" W 320.66'
N 60°00'00" W 396.98'
S 59°42'26" W 360.66'
S 77°30'11" W 350.91'
S 47°24'43" E 719.31'
N 60°00'00" E 470.78'
S 30°00'00" E 607.68'
S 62°20'01" W 262.20'
N 33°59'43" W 1785.78'
N 62°20'01" E 1926.73'
N 745134
N 745142
N 748245
N 746399
N 746399
1273'
1655'
1455'
1455'
1455


MARYLAND/PENNSYLVANIA BOUNDARY
TAX MAP 3 PARCEL 35
N/F
JOAN D AGNES M KELLER
D.B. 8123/0317
ZONING: RC2
TAX ACCT. #0711015275
USE: RESIDENTIAL
TAX MAP 3 PARCEL 72
N/F
ALTMEYER LIVING TRUST
D.B. 14924/0747
ZONING: RC2
TAX ACCT. #1700001479
USE: RESIDENTIAL
EXISTING TREELINE TO REMAIN
PROPOSED PERIMETER FENCE (APPROX. LOCATION)
LIMIT OF SOLAR FACILITY
PROPOSED SOLAR ARRAY
PROPOSED SPECIAL EXCEPTION AREA ±18.929 AC
PROPOSED 20' WIDE ACCESS ROAD
PROPOSED MEDIUM VOLTAGE CONNECTION ELECTRICAL LINE
PROPOSED UTILITY POLE
POINT OF BEGINNING
KELLER RD
ORMIG RD
OAKLAND RD (8.20' PAVING WIDTH - VARIABLE R/W)
FREELAND RD (±21' PAVING WIDTH - VARIABLE R/W)
RC 2
TAX MAP 2 PARCEL 45
N/F
ERIC KYLE, SHARA SIMON ANDERSON
D.B. 34376/0330
ZONING: RC2
TAX ACCT. #7923050300
USE: RESIDENTIAL
TAX MAP 3 PARCEL 116
N/F
NORBERT JOSEPH JR.
BARBARA ANN MAAS
D.B. 10145/00824
ZONING: RC2
TAX ACCT. #2100012616
USE: RESIDENTIAL
TAX MAP 3 PARCEL 42
N/F
MORRIS L. SHARON A BOHLAYER
D.B. 15106/0546
ZONING: RC2
TAX ACCT. #0702037200
USE: AGRICULTURE
TAX MAP 3 PARCEL 5
N/F
FRANK K OMING
18693/0254
TAX ACCT. #0713075400
ZONING: R2
USE: VACANT
TAX MAP 3 PARCEL
N/F
SANDRA DEE SHIREY
D.B. 21919/0049
ZONING: RC2
TAX ACCT. #0701089050
USE: AGRICULTURE
TAX MAP 3 PARCEL 3
N/F
SANDRA DEE SHIREY
CONNIE ELAINE WOOD
21919/0080
TAX ACCT. #0702903300
ZONING: R2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 73
N/F
KRIS HYLOEM
D.B. 08635/0328
TAX ACCT. #1700001470
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 36
N/F
RONALD L DANIELSON
SARA C SULLIVAN
D.B. 20135/01206
TAX ACCT. #1700001469
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 73
N/F
STEPHEN D. WENDY K MOONEY
D.B. 10273/0338
TAX ACCT. #1700001466
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 38
N/F
HOWARD WITT JOYCE MES
D.B. 05202/01552
TAX ACCT. #1600004683
ZONING: RC2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 23
N/F
ROBERT L. SUSAN D. HUGHES
D.B. 28518/00245
TAX ACCT. #0700004040
ZONING: R2
USE: RESIDENTIAL
TAX MAP 3 PARCEL 40
N/F
STEVEN H ROWE
D.B. 20147/0425
ZONING: RC2
TAX ACCT. #0712020509
USE: RESIDENTIAL
TAX MAP 3 PARCEL 75
N/F
MATTHEW R NATALIE J HUBBARD
D.B. 28318/0020
ZONING: RC2
TAX ACCT. #0701093580
USE: RESIDENTIAL
TAX MAP 3 PARCEL 166
N/F
BOARD OF LIVING
D.B. 03503/00071
ZONING: RC2
TAX ACCT. #0719007310
USE: AGRICULTURE
TAX MAP 3 PARCEL 4
N/F
SONNIE ELAINE WOOD
D.B. 29380/00103
ZONING: RC2
TAX ACCT. #2100011606
USE: AGRICULTURE
EX. DWELLING
EX. WELL
EX. SEPTIC
N 748245
N 747834
N 747342
N 745134
N 745369
N 744999
N 744999
N 744999



OVERALL PROPERTY PLANTING PLAN

SCALE: 1"=200'

200 0 200 400

SCALE: 1" = 200'

LANDSCAPING REQUIREMENTS

KEY	LANDSCAPING TABULATION	LINEAR FEET (LF.)	PLANTING UNITS (PU.)
A	ADJACENT ROAD @ 1:40 PU. PER LF.	2,370 LF.	59.3 PU.
	OAKLAND ROAD (SCENIC ROAD)	(2,020 LF.)	(50.5 PU.)
	ORWIG ROAD	(350 LF.)	(8.75 PU.)
B	ADJACENT RESIDENTIAL USE @ 1:15 PU. PER LF.	3,681 LF.	245.5 PU.
	WEST (ATKINSON, ANDERSON, KELLER PROPERTIES)	(1,421 LF.)	(94.8 PU.)
	NORTH (KELLER, ALTMEYER PROPERTIES)	(1,104 LF.)	(73.6 PU.)
	EAST (ALTMEYER, ROHE, HOIEM PROPERTIES)	(1,156 LF.)	(77.1 PU.)
	TOTAL PLANTING UNITS REQUIRED		**304.8 PU.**

LANDSCAPING PROVIDED

LANDSCAPING PROVIDED	QUANTITY	PLANTING UNITS (PU.)
MAJOR DECIDUOUS TREES	157	157
EVERGREEN TREES	330	165
MINOR DECIDUOUS TREES	55	27.5
SHRUBS	80	16
TOTAL PLANTING UNITS PROVIDED		**365.5 PU.**

LANDSCAPE PLAN NOTES:

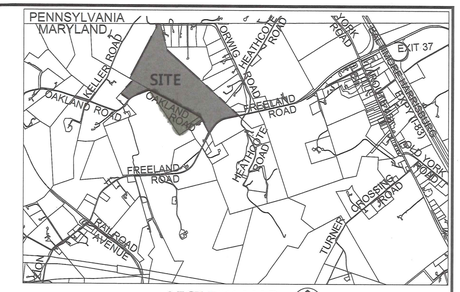
1. EXISTING TREES TO REMAIN TO THE EAST OF THE SPECIAL EXCEPTION AREA ARE NOT BEING SHOWN TO SUPPLEMENT SCREENING REQUIREMENTS FOR RESIDENTIAL PROPERTIES ALONG THE EAST BOUNDARY TO ENSURE AN ADEQUATE BUFFER IS PROVIDED FROM SURROUNDING PROPERTIES AND PUBLIC RIGHTS OF WAY.
2. ALL PROPOSED PLANTS ALONG THE ENTIRE SITE SHALL BE LOCATED AS NOT TO DISTURB EXISTING VEGETATION TO REMAIN.
3. OAKLAND ROAD IS DESIGNATED AS A SCENIC ROUTE, AND PROPOSED SCREENING ALONG THIS ROAD AND THE SOUTHERN PORTION OF THE SITE HAS BEEN DESIGNED ACCORDING TO THE REQUIREMENTS OF SECTION 32-4-244.(d), BALTIMORE COUNTY DEVELOPMENT REGULATIONS.

LEGEND:

- PROPERTY BOUNDARY
- 290 EXISTING MAJOR CONTOUR
- 292 EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE (TO REMAIN)
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM
- PROPOSED EVERGREEN TREE / SHRUB
- PROPOSED DECIDUOUS TREE / SHRUB
- PROPOSED NATIVE POLLINATOR HABITAT 15% OF TOTAL AREA, LOCATION TBD

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC6 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701089060, DEED REF. #: 26823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LESSEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± (SDAT), 74.622 AC (GIS)/ SPECIAL EXCEPTION AREA ±16.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	407.00
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY 'MY NEIGHBORHOOD' WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24213C0610F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY: A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEW OF PERMITS ISSUED).

DATA SOURCE:

1. THE PROPERTY LINES, TOPOGRAPHY, FEMA MAPPED FLOODPLAINS, SOILS, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION, SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY (2018).
2. THE NON-TIDAL WETLANDS, STEEP SLOPES, AND BUFFERS AS SHOWN, WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 04/12/2018.

DRC #042418 C

CASE #2018-0194-X

PETITIONER'S EXHIBIT 2

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____

Schematic Landscape Plan Certification Form

This Schematic Landscape Plan is sealed by a landscape architect and certified by my signature below as being in accordance with all county agency landscape architectural comments.

Applicant Signature Date Print Name

Mailing Address (If not already on plan)

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SCHEMATIC LANDSCAPE PLAN

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL

STATE OF MARYLAND · DONALD L. DAFT · LANDSCAPE ARCHITECT

DATE	BY	REVISIONS

ISSUE DATES			
REVIEW:	7/17/18	BASE:	
BID:		DRAWN:	JAD
PERMIT:		DESIGNED:	JAD
CONSTRUCTION:		CHECKED BY:	
SCALE:	1" = 200'	DATE CHECKED:	
PROJECT NO.:	16046	DRAWING:	1 of 4

A:\16046\16046DYNENGRGCAD FILES\WORKING\16046_LAOUT.DWG THU, JUL 19, 2018


Protestant
CBA Exhibit
14-A


Protestant
CBA Exhibit
14-B

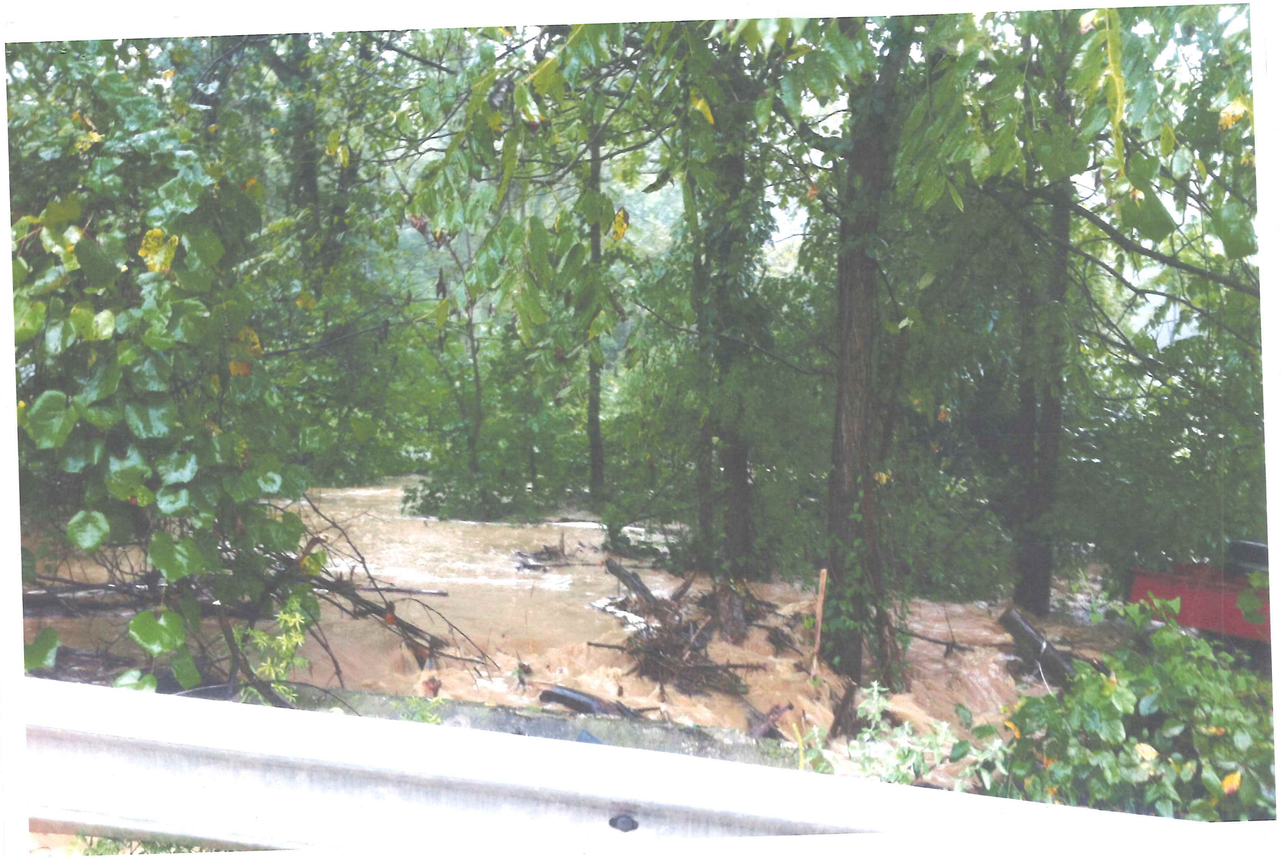

Protestant
CBA Exhibit
14C



Protestant
CBA Exhibit
14D

Protestant
CBA Exhibit
14 E


Prot. 4

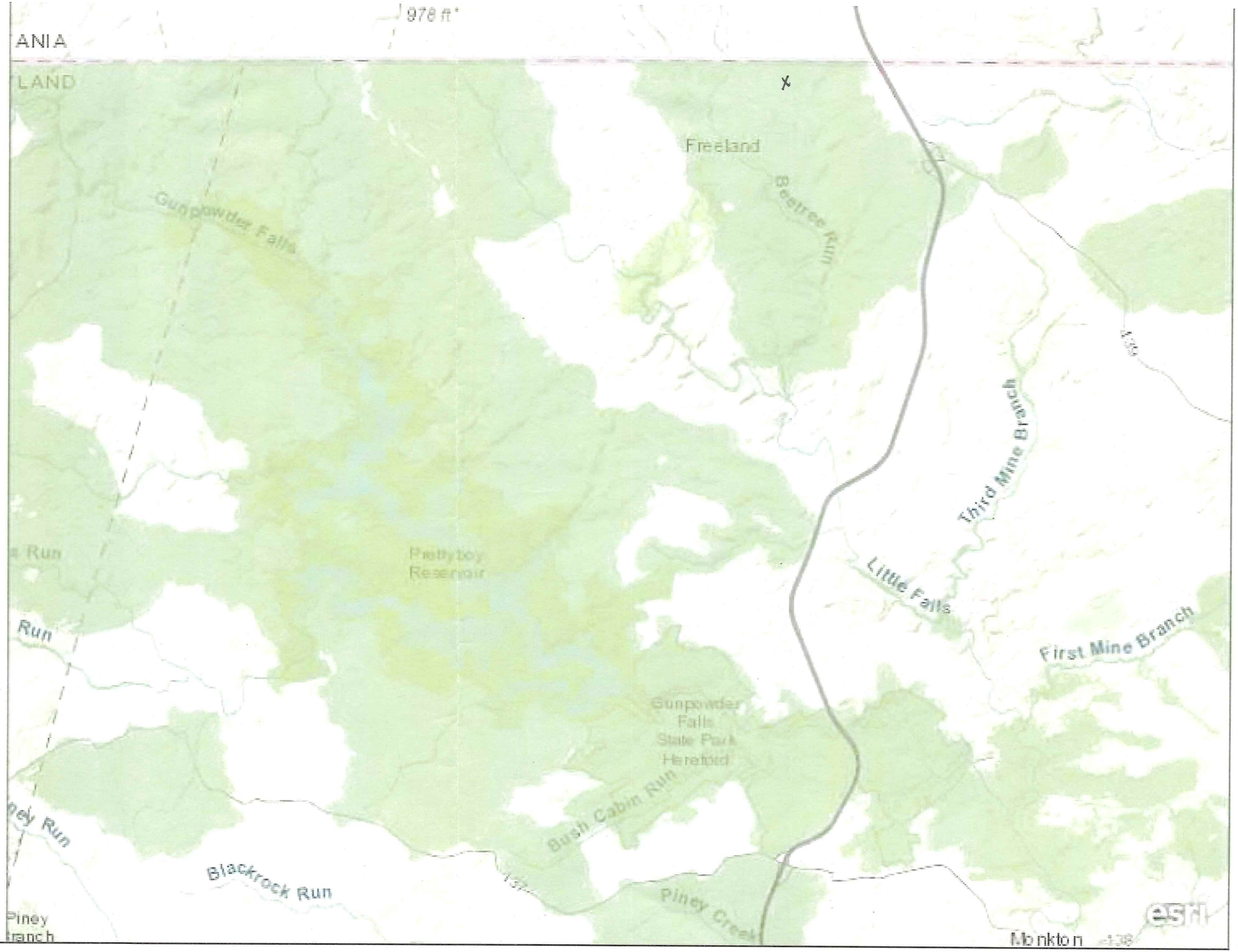


Road frontage between 612 and 632 Freeland Rd, facing north, downstream from proposed solar site.
This storm water runoff ran onto Freeland Rd from this normally quiet stream. Note guardrail: there is no shoulder on this side of road.



Same location after storm, photo taken 10/2/2018. Note size of stream, normally a few inches deep throughout the year.

MD_FocalAreas - Targeted Ecological Areas

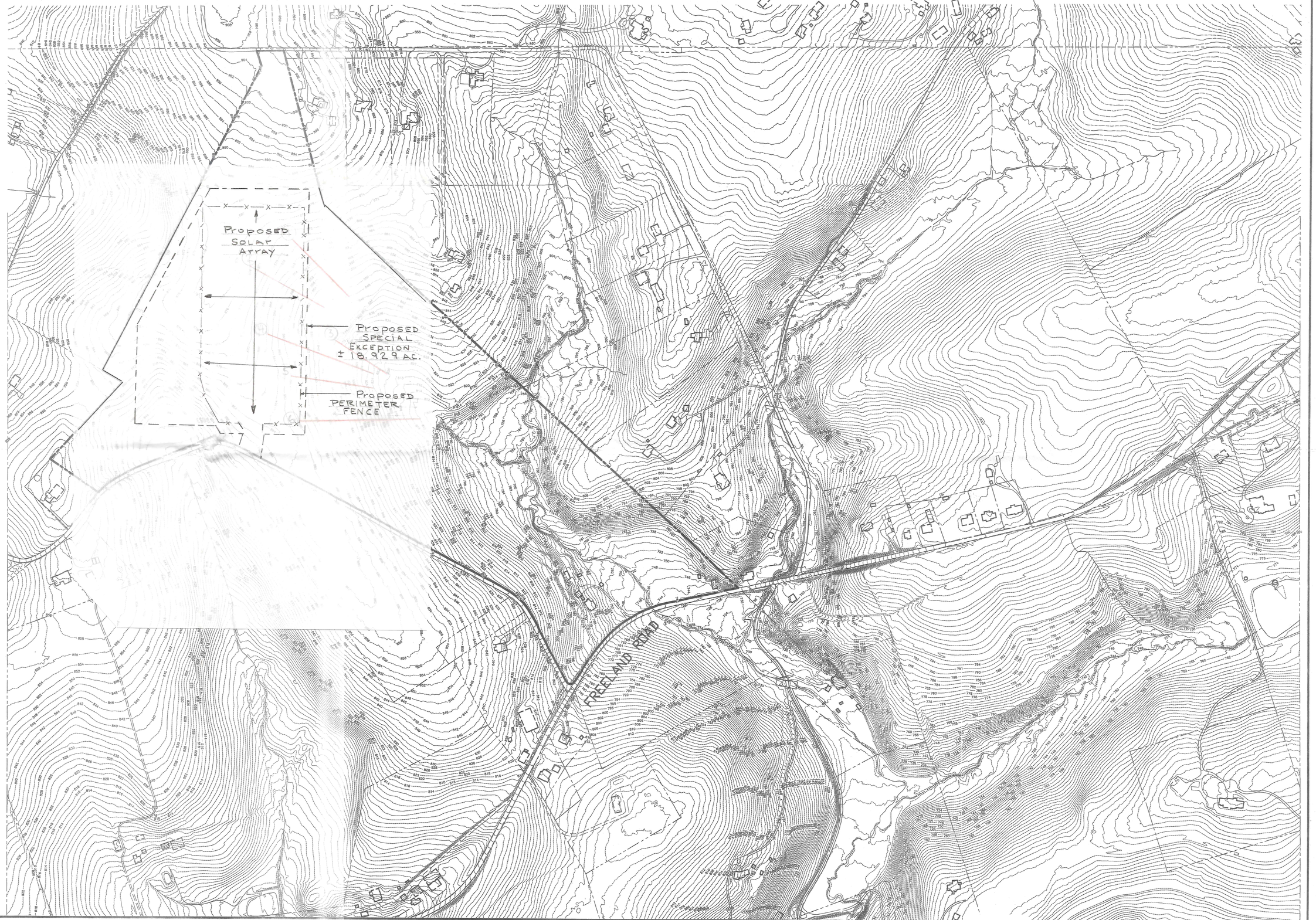


Petitioner
CBA Exhibit
17

Baltimore County, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | MD iMAP, DNR

SLOPES

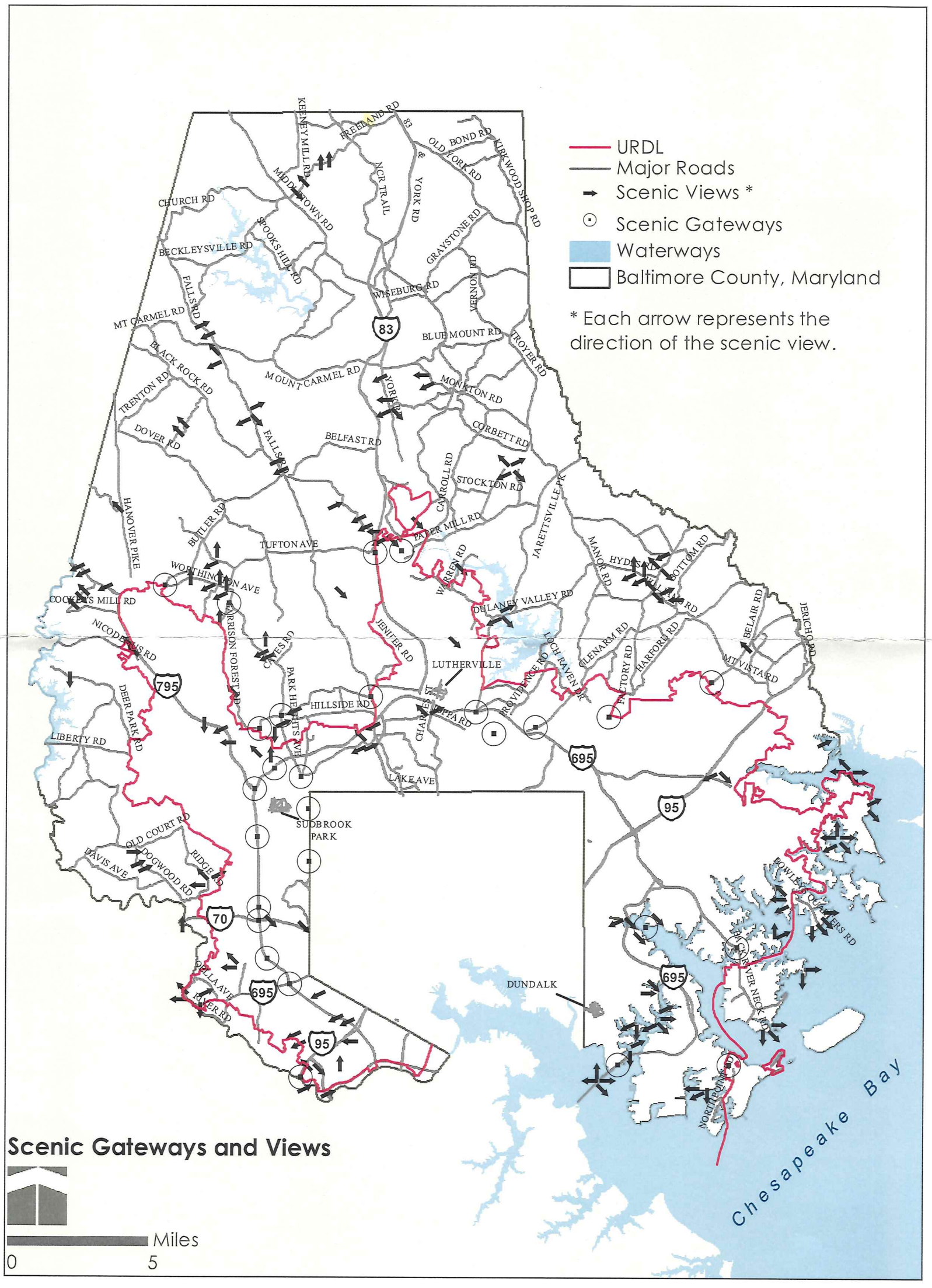
① 5.8%
② 7.0%
③ 8.0%
④ 8.0%
⑤ 9.0%
⑥ 8.2%



SCALE: 1" = 200'

Protestant
CBA Exhibit
69

SCALE 1"=200' 632 FREELAND Rd.
2018-0194-X



PETITIONER'S EXHIBIT 14

PEOPLE'S COUNSEL 19



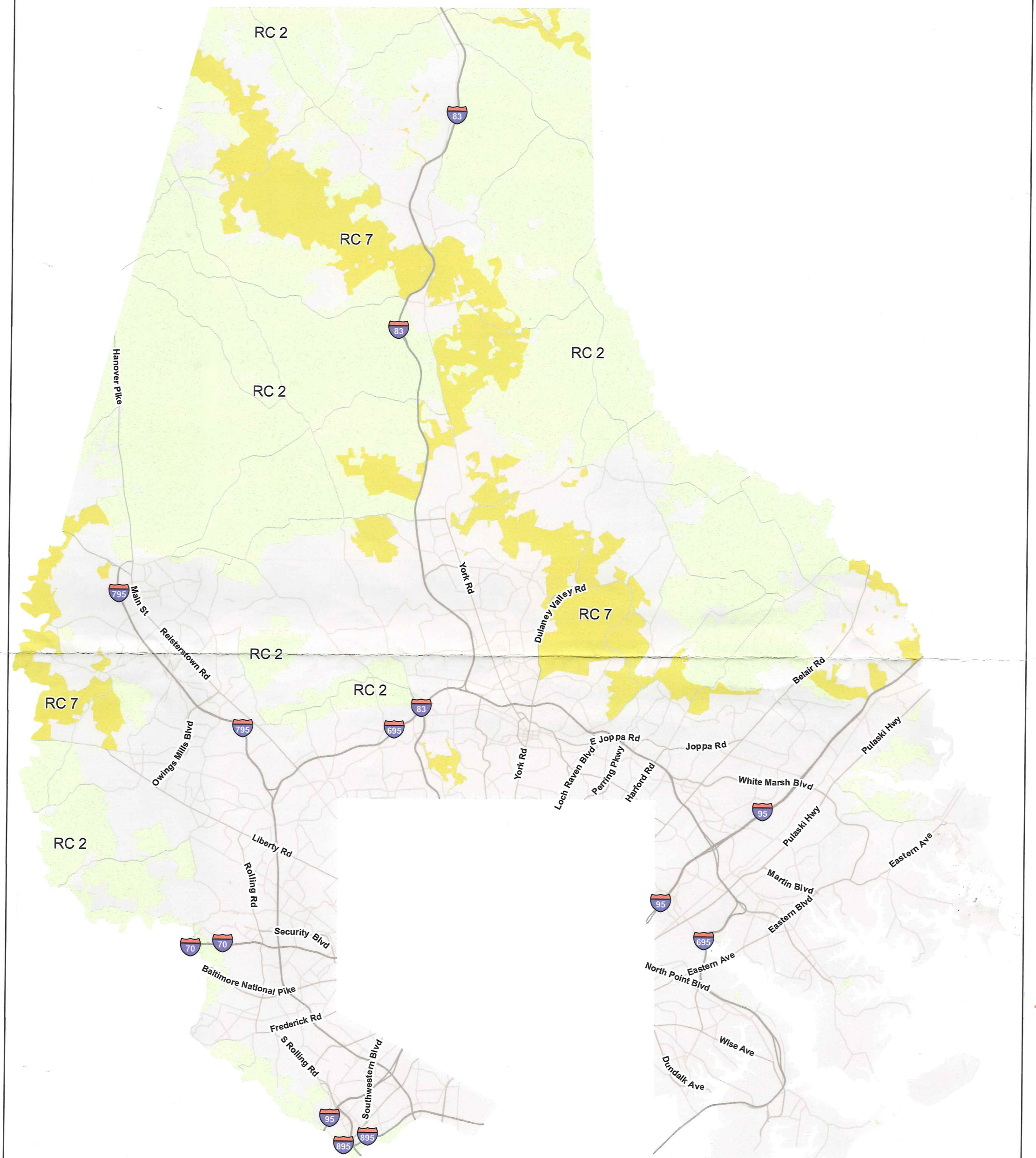
Prepared by Geographic Information Services
Baltimore County Office of Information Technology
Date: Jun 27, 2018
2017 Imagery

1 inch = 162 feet

0 70 140 280 420 560
Feet

632 FREELAND RD

Zoning 2018



Zoning Class

- Other Zoning
- RC 2
- RC 7

People's Counsel
CBA Exhibit
20

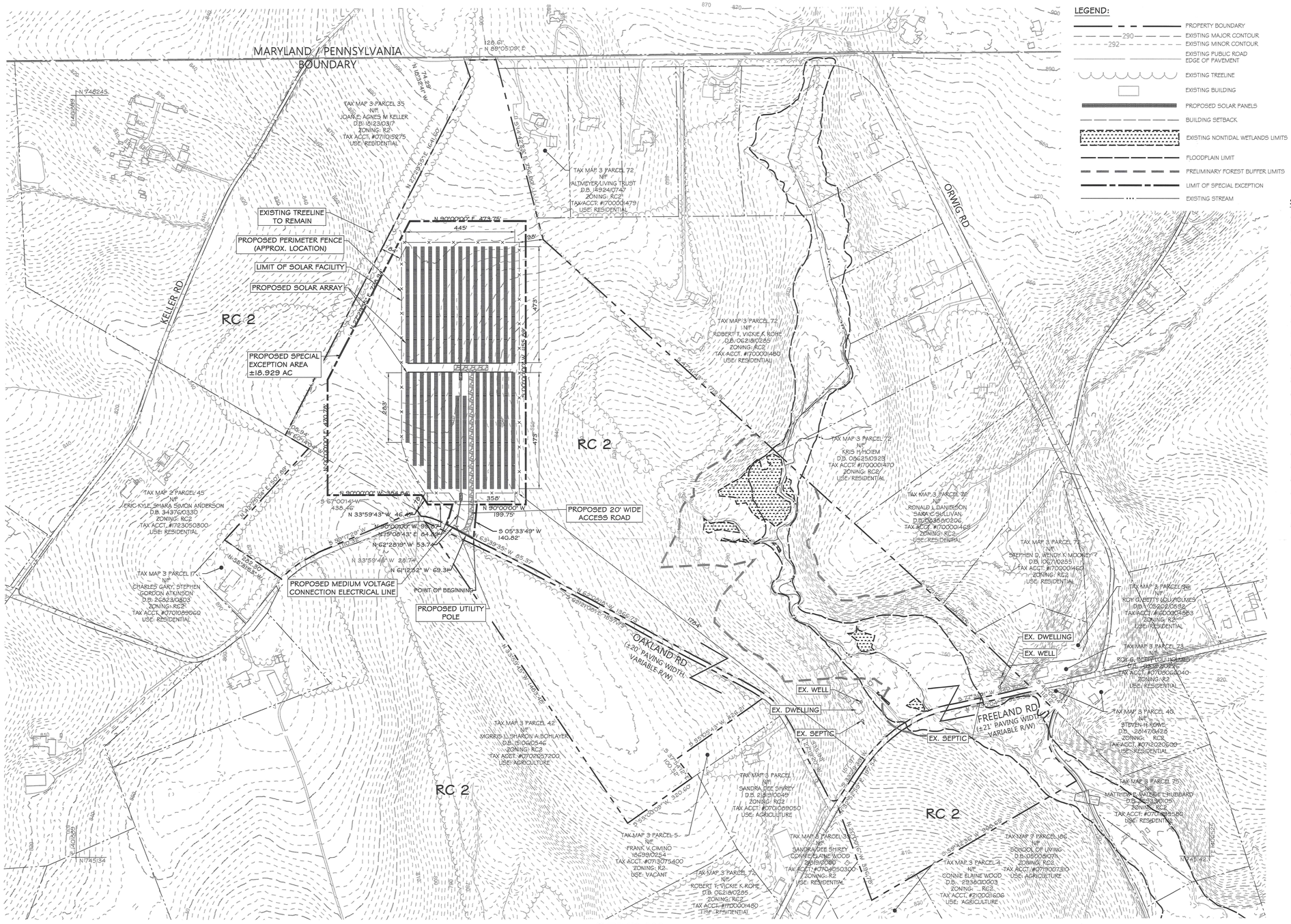
Total Zoning Area:
RC 2 = 139,053.40 Acres
RC 7 = 36,290.24 Acres

Prepared by Geographic Information Services
Baltimore County Office of Information Technology
Date: August 29, 2018
2017 Imagery

1 Inch = 3 miles

0 1 2 4 6 8
Miles

N W E S



SITE PLAN

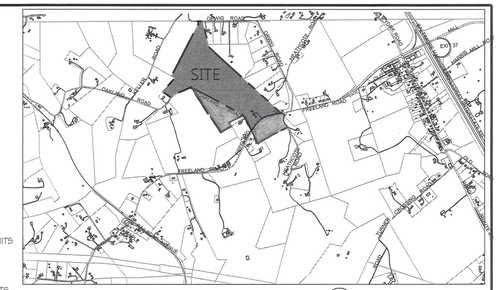
SCALE: 1"=200'

200 0 200 400

SCALE: 1" = 200'

LEGEND:

- PROPERTY BOUNDARY
- 290 EXISTING MAJOR CONTOUR
- 292 EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701089060, DEED REF. #: 26823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LESSEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± SPECIAL EXCEPTION AREA ±18.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	40700
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY "MY NEIGHBORHOOD" WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24133C0610F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY: A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEWED COUNTY RECORDS).

DATA SOURCE:

1. THE PROPERTY LINES, TOPGRAPHY, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION.
2. THE WETLANDS AS SHOWN WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 01/19/2018

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC6 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SITE PLAN TO ACCOMPANY SPECIAL EXCEPTION FOR A SOLAR FACILITY

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL

THIS PLAN IS SEALED FOR ZONING PURPOSES ONLY AND DOES NOT REPRESENT A PRO BONO

MICHAEL DAVID MARTIN — 21708 — REGISTERED PROFESSIONAL ENGINEER — 2-9-18

DATE	BY	REVISIONS

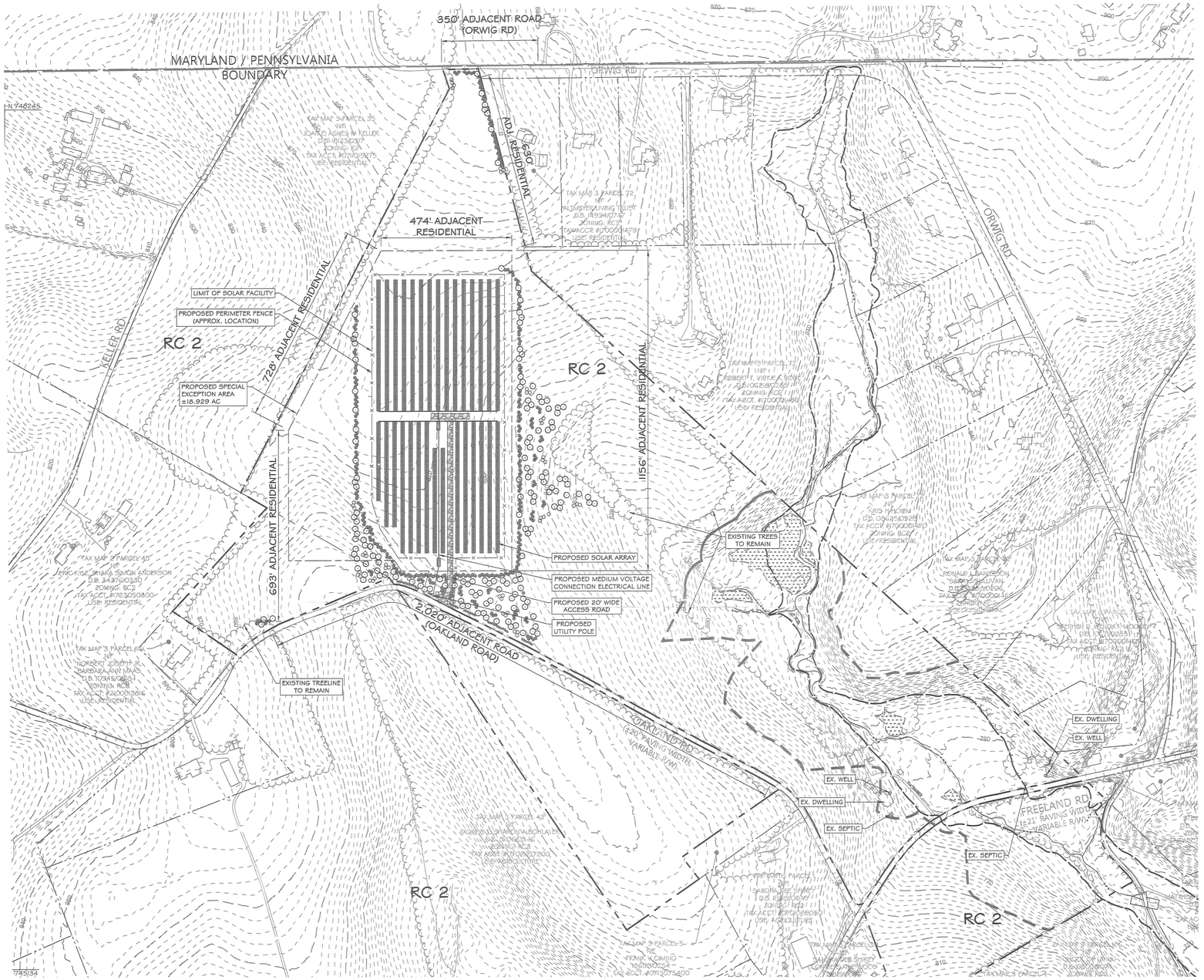
ISSUE DATES
REVIEW: 2/9/18
BID:
PERMIT:
CONSTRUCTION:

SCALE: 1" = 200'
PROJECT NO.: 16046

BASE:
DRAWN: CHP
DESIGNED: MJK/EJC
CHECKED BY:
DATE CHECKED:
DRAWING: 1 of 1

CASE #2018-0194-X

A:\GIS\16\04\CONGRCAD FILES\SHEET FILES\GOAL SHEDLDWG Fri, Feb 09, 2018



OVERALL PROPERTY PLANTING PLAN

SCALE: 1"=200'

SCALE: 1" = 200'

LANDSCAPING REQUIREMENTS			
KEY	LANDSCAPING TABULATION	LINEAR FEET (LF.)	PLANTING UNITS (PU.)
A	ADJACENT ROAD @ 1:40 PU. PER LF.	2,370 LF.	59.3 PU.
	OAKLAND ROAD (SCENIC ROAD)	(2,020 LF.)	(50.5 PU.)
	ORWIG ROAD	(350 LF.)	(8.75 PU.)
B	ADJACENT RESIDENTIAL USE @ 1:15 PU. PER LF.	3,681 LF.	245.5 PU.
	WEST (ATKINSON, ANDERSON, KELLER PROPERTIES)	(1,421 LF.)	(94.8 PU.)
	NORTH (KELLER, ALTMEYER PROPERTIES)	(1,104 LF.)	(73.6 PU.)
	EAST (ALTMEYER, ROHE, HOIEM PROPERTIES)	(1,156 LF.)	(77.1 PU.)
	TOTAL PLANTING UNITS REQUIRED		**304.8 PU.**

LANDSCAPING PROVIDED	QUANTITY	PLANTING UNITS (PU.)
MAJOR DECIDUOUS TREES	157	157
EVERGREEN TREES	330	165
MINOR DECIDUOUS TREES	55	27.5
SHRUBS	80	16
TOTAL PLANTING UNITS PROVIDED		**365.5 PU.**

LANDSCAPE PLAN NOTES:

1. EXISTING TREES TO REMAIN TO THE EAST OF THE SPECIAL EXCEPTION AREA ARE NOT BEING SHOWN TO SUPPLEMENT SCREENING REQUIREMENTS FOR RESIDENTIAL PROPERTIES ALONG THE EAST BOUNDARY TO ENSURE AN ADEQUATE BUFFER IS PROVIDED FROM SURROUNDING PROPERTIES AND PUBLIC RIGHTS OF WAY.
2. ALL PROPOSED PLANTS ALONG THE ENTIRE SITE SHALL BE LOCATED AS NOT TO DISTURB EXISTING VEGETATION TO REMAIN.
3. OAKLAND ROAD IS DESIGNATED AS A SCENIC ROUTE, AND PROPOSED SCREENING ALONG THIS ROAD AND THE SOUTHERN PORTION OF THE SITE HAS BEEN DESIGNED ACCORDING TO THE REQUIREMENTS OF SECTION 32-4-244.(d), BALTIMORE COUNTY DEVELOPMENT REGULATIONS.

LEGEND:

- PROPERTY BOUNDARY
- 290 EXISTING MAJOR CONTOUR
- 292 EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE (TO REMAIN)
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM
- PROPOSED EVERGREEN TREE / SHRUB
- PROPOSED DECIDUOUS TREE / SHRUB
- PROPOSED NATIVE POLLINATOR HABITAT 15% OF TOTAL AREA, LOCATION TBD

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
   b. THE FACILITY WILL COMPLY WITH THE REQUIREMENTS OF BCZR ARTICLE 4E.
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC6 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701089060, DEED REF. #: 26523 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LESSEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± (SDAT), 74.622 AC (GIS)/ SPECIAL EXCEPTION AREA ±18.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	40700
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY 'MY NEIGHBORHOOD' WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 24213SC0610F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY: A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEWED COUNTY RECORDS).

DATA SOURCE:

1. THE PROPERTY LINES, TOPGRAPHY, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION.
2. THE WETLANDS AS SHOWN WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 01/19/2018

CASE #2018-0194-X

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SCHEMATIC LANDSCAPE PLAN

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL

THIS PLAN IS SEALED FOR ZONING PURPOSES ONLY AND DOES NOT REPRESENT A FIELD SURVEY.

DATE	BY	REVISIONS

PETITIONER'S EXHIBIT 10

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____

Schematic Landscape Plan Certification Form

This Schematic Landscape Plan is sealed by a landscape architect and certified by my signature below as being in accordance with all county agency landscape architectural comments.

Applicant Signature Date Print Name

Mailing Address (If not already on plan)

ISSUE DATES		BASE:	
REVIEW:	3/29/18	DRAWN:	JAD
BID:		DESIGNED:	JAD
PERMIT:		CHECKED BY:	
CONSTRUCTION:		DATE CHECKED:	
SCALE:	1" = 200'	DRAWING:	1 of 4
PROJECT NO.:	16046		

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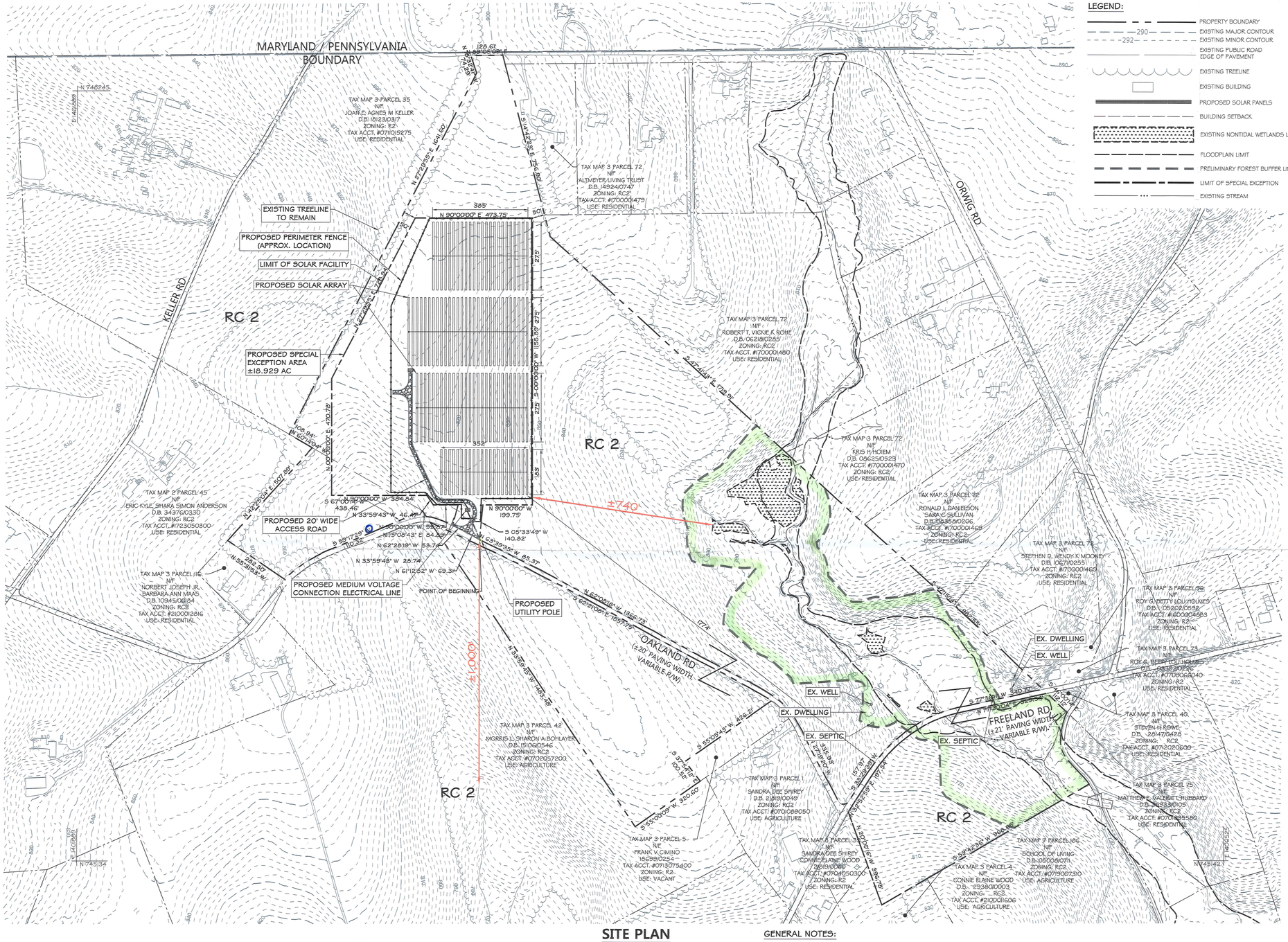

SITE PLAN

SCALE: 1"=200'

200 0 200 400

SCALE: 1" = 200'

GENERAL NOTES:

1. BASED ON BALTIMORE COUNTY GIS, THERE IS NO ZONING OR DEVELOPMENT PROCESS HISTORY ON THE PROPERTY.
2. AMENITY OPEN SPACE: N/A; FLOOR AREA RATION: N/A
3. NOTES FOR SPECIAL EXCEPTION USE:
   a. PETITIONER REQUESTS APPROVAL OF A PETITION FOR SPECIAL EXCEPTION, PURSUANT TO SECTION 4E-102 OF THE BALTIMORE COUNTY ZONING REGULATIONS FOR A SOLAR FACILITY.
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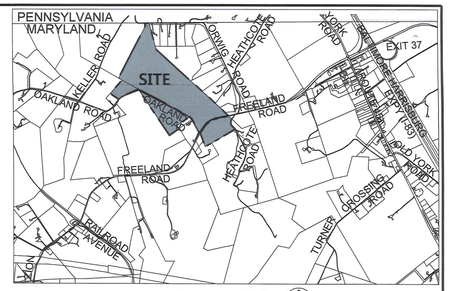
   c. THE AREA OF THE SPECIAL EXCEPTION IS NECESSARY TO PRODUCE NO MORE THAN TWO MEGAWATTS ALTERNATING CURRENT (AC) OF ELECTRICITY.
   d. THE PROPERTY IS NOT ENCUMBERED BY AN AGRICULTURAL PRESERVATION EASEMENT, AN ENVIRONMENTAL PRESERVATION EASEMENT OR A RURAL LEGACY EASEMENT.
   e. THE PROPERTY IS NOT LOCATED IN A BALTIMORE COUNTY HISTORIC DISTRICT, AND THERE ARE NO STRUCTURES ON THE SITE LISTED ON THE BALTIMORE COUNTY FINAL LANDMARKS LIST.
   f. THE SPECIAL EXCEPTION AREA IS NOT IN A FOREST CONSERVATION EASEMENT OR IN A DESIGNATED CONSERVANCY AREA IN AN RC4 OR RC6 ZONE.
   g. THE ABOVEGROUND COMPONENTS OF THE FACILITY (NOT INCLUDING LANDSCAPING, SECURITY FENCING, WIRING, OR POWER LINES) WILL BE SET BACK A MINIMUM OF 50 FEET FROM THE TRACT BOUNDARY UNLESS APPROVED BY A ZONING VARIANCE.
   h. ANY STRUCTURES ASSOCIATED WITH THE FACILITY WILL NOT EXCEED 20 FEET IN HEIGHT.
   i. A LANDSCAPE BUFFER WILL BE PROVIDED AROUND THE PERIMETER OF THE FACILITY THAT IS VISIBLE FROM AN ADJACENT RESIDENTIALLY ZONED PROPERTY OR A PUBLIC STREET. SCREENING OF STATE AND LOCAL SCENIC ROUTES AND SCENIC VIEWS WILL BE PROVIDED.
   j. SECURITY FENCING WILL BE PROVIDED BETWEEN THE LANDSCAPING BUFFER AND THE SOLAR FACILITY.
   k. THE SOLAR COLLECTOR PANELS SHALL BE DESIGNED AND LOCATED IN AN ARRANGEMENT THAT MINIMIZES GLARE OR REFLECTION ONTO ADJACENT PROPERTIES AND ADJACENT ROADWAYS. THE FACILITY WILL NOT INTERFERE WITH TRAFFIC OR CREATE A SAFETY HAZARD.
   l. PETITIONER WILL COMPLY WITH THE PLAN REQUIREMENTS OF SECTION 33-3-108 OF THE BALTIMORE COUNTY CODE.
   m. PARKING IS NOT PROVIDED FOR THIS UNMANNED FACILITY.
   n. NO MORE THAN TEN (10) SOLAR FACILITIES MAY BE LOCATED IN A COUNCILMANIC DISTRICT

LEGEND:

- PROPERTY BOUNDARY
- 290 EXISTING MAJOR CONTOUR
- 292 EXISTING MINOR CONTOUR
- EXISTING PUBLIC ROAD EDGE OF PAVEMENT
- EXISTING TREELINE
- EXISTING BUILDING
- PROPOSED SOLAR PANELS
- BUILDING SETBACK
- EXISTING NONTIDAL WETLANDS LIMITS
- FLOODPLAIN LIMIT
- PRELIMINARY FOREST BUFFER LIMITS
- LIMIT OF SPECIAL EXCEPTION
- EXISTING STREAM



VICINITY MAP

SCALE: 1"=2000'

SITE DATA:

1.	OWNER:	ATKINSON CHARLES GARY, ATKINSON STEPHEN GORDON
2.	TAX ACCT. #:	0701089060, DEED REF. #: 26823 / 00303
3.	TAX PREMISE ADDRESS:	632 FREELAND ROAD, FREELAND, MD 21053
4.	CONTRACT PURCHASER: OR LEASEE	ONE ENERGY RENEWABLES 2003 WESTERN AVENUE, SUITE 225 SEATTLE, WA 98121
5.	ZONING:	RC 2
6.	COUNCILMANIC DISTRICT:	3
7.	ELECTION DISTRICT:	7
8.	TAX MAP / PARCEL:	0003 / 0017
9.	SITE AREA:	99.46 AC ± SPECIAL EXCEPTION AREA ±18.92 AC
10.	GROWTH TIER:	4
11.	CENSUS TRACT:	40700
12.	WATERSHED:	LOCH RAVEN RESERVOIR

13. FREELAND AND OAKLAND ROADS ARE DESIGNATED AS BALTIMORE COUNTY SCENIC ROUTES, AS IDENTIFIED IN THE BALTIMORE COUNTY MASTER PLAN 2020.
14. THE SITE IS NOT HISTORIC AND THERE ARE NO LANDMARKS ON THE PROPERTY PER BALTIMORE COUNTY "MY NEIGHBORHOOD" WEBSITE.
15. THE SITE IS NOT WITHIN A MORATORIUM AREA AS IDENTIFIED ON THE BALTIMORE COUNTY BASIC SERVICES MAPS.
16. 100-YEAR FLOODPLAIN SHOWN HEREON TAKEN FROM FEMA FIRM MAP PANEL NO. 42133C0610F
17. NO SUBDIVISION IS PROPOSED.
18. NO STRUCTURES WILL EXCEED A HEIGHT OF 35 FEET (NOT INCLUDING SOLAR RELATED STRUCTURES).
19. PARKING REQUIRED: ZERO (0), UNMANNED FACILITY: A TEMPORARY PARKING SPACE WILL BE PROVIDED FOR MAINTENANCE.
20. NO SIGNAGE IS PROPOSED.
21. THERE ARE NO ACTIVE BUILDING PERMITS IN THE AREA OF THE PROPOSED SOLAR PANELS (BASED UPON REVIEWED COUNTY RECORDS).

DATA SOURCE:

1. THE PROPERTY LINES, TOPOGRAPHY, FEMA MAPPED FLOODPLAINS, SOILS, ROADS, AND BUILDINGS SHOWN HEREON WERE OBTAINED FROM BALTIMORE COUNTY GIS, AERIAL PHOTOGRAPHY BY GOOGLE, AND DEED INFORMATION, SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY (2018).
2. THE NON-TIDAL WETLANDS, STEEP SLOPES, AND BUFFERS AS SHOWN, WERE APPROVED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY ON 04/22/2016.

DRC #042418 C

DMW
DAFT McCUNE WALKER INC
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SITE PLAN TO ACCOMPANY SPECIAL EXCEPTION FOR A SOLAR FACILITY

SASSAFRAS SOLAR

632 FREELAND RD.
FREELAND, MD 21053

BALTIMORE COUNTY, MD

SEAL

THIS PLAN IS SEALED FOR ZONING PURPOSES ONLY AND DOES NOT REPRESENT A FIELD SURVEY.

DATE	BY	REVISIONS

ISSUE DATES
REVIEW: 7/17/18
BID:
PERMIT:
CONSTRUCTION:

BASE:	
DRAWN:	CHP
DESIGNED:	MJK/EJC
CHECKED BY:	
DATE CHECKED:	
SCALE:	1" = 200'
PROJECT NO.:	16046
DRAWING:	1 of 1

PETITIONER'S EXHIBIT 14

CASE #2018-0194-X

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