APPENDIX 1

Draft ERD

DRAFT ENVIRONMENTAL REVIEW DOCUMENT
PROJECT NO. 23005.00
MAY 15, 2024

JADE MEADOW III
300 MWAC SOLAR PROJECT
GARRETT AND ALLEGANY COUNTIES, MARYLAND

PREPARED FOR:
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INTRODUCTION

Jade Meadow III LLC (the "Applicant") proposes to develop a three hundred and ninety (390.0) megawatt ("MW") direct current ("DC"), three hundred (300.0) megawatt ("MW") alternating current ("AC") fixed-tilt solar photovoltaic ("PV") system. This Draft Environmental Review Document ("ERD") was prepared in accordance with Code of Maryland Regulations ("COMAR") 20.79.02.02-.04 for submittal to Garrett County and Allegany County for the purpose of preliminary engagement and consultation prior to the filing with the Maryland Public Service Commission ("PSC") of an application for a Certificate of Public Convenience and Necessity ("CPCN"). This document will be updated and supplemented, as appropriate, based on consultations with Garrett County, Allegany County, and evolution of the Project design. A final Environmental Review Document will be filed with the CPCN application and provided to the County and will supersede this initial consultation draft.

SECTION 1 – PROJECT OVERVIEW

The Project as proposed by the Applicant is located primarily in Garrett County (the "County") on various properties in proximity to Westernport and Barton along Route 36/Route 135 (see ***Figure 1*** and ***Figure 2***). A small segment (approximately 3,500') of the overhead collector line will be located in Allegany County. The Project will consist of twenty-six (26) parcels, many of which are contiguous. Portions of six (6) parcels will be needed for easements to accommodate the various collector lines. As proposed by the Applicant, the Project will be approximately three hundred (300.0) MW AC fixed-tilt solar photovoltaic ("PV").

The Project parcels are shown in ***Table 1*** below and comprise approximately four thousand five hundred seven (4,507.60) acres (see ***Appendix 1*** for more detail on each Property).

Table 1 –Parcels

Property #	County	Tax Map	Grid	Parcel
1	Garrett	0062	0004	0002
2	Garrett	0062	0010	0029
3	Garrett	0062	0009	0010
4	Garrett	0062	0013	0030
5	Garrett	0062	0022	0033
6	Garrett	0062	0006	0006
7	Garrett	0062	0008	0007
8	Garrett	0062	0010	0011
9	Garrett	0062	0011	0012
10	Garrett	0062	0014	0013
11	Garrett	0062	0003	0028
12	Garrett	0062	0020	0014
13	Garrett	0062	0022	0015

Property #	County	Tax Map	Grid	Parcel
14	Garrett	0062	0016	0017
15	Garrett	0062	0007	0022
16	Garrett	0070	0010	0031
17	Garrett	0062	0018	0040
18	Garrett	0062	0016	0016
19	Garrett	0062	0017	0018
20	Garrett	0055	0001	0014
21	Garrett	0054	0012	0018
22	Garrett	0054	0006	0012
23	Garrett	0046	0024	0042
24	Garrett	0055	0001	0015
25	Garrett	0055	0007	0003
26	Garrett	0062	0022	0032

The Easement Only parcels are shown in ***Table 2*** below and comprise approximately one thousand three hundred twenty-two (1,322.59) acres (see ***Appendix 1*** for more detail on each Property). Less than four percent (4.0%) of the Properties designated for easement only purposes will be used for the Project.

Table 2 – Easement Only Parcels

Property #	County	Tax Map	Grid	Parcel
27	Garrett	0062	0006	0031
28	Garrett	0054	0018	0006
29	Garrett	0054	0024	0007
30	Garrett	0047	0019	0010
31	Allegany	0068	0007	0209
32	Allegany	0068	0001	0226

The Parcels and Easement Only Parcels are collectively known as the "Project Parcels". Although the total acreage evaluated is five thousand nine hundred thirty-three (5,933.07) acres, not all will be used for Project facilities as appropriate areas have been excluded based on environmental constraints mapping, and for others only a small portion of the Parcel is being used. As currently proposed, the Project would include a Limit of Disturbance ("LOD") of approximately two thousand one hundred (2,100) acres. Approximately two thousand acres (2,000) will be located in Garrett County associated with the solar array layout as well as easement areas for Project interconnection purposes. Approximately one hundred (100) acres will be located in Allegany County strictly for overhead collector line purposes.

The Applicant has contracted to lease the underlying parcels associated with the Project, via Option to Lease Agreements (see ***Figure 3*** and ***Appendix 2***). The Project is not located within a zoned district of the County per Garrett County Zoning Maps. The majority of the Project is on land that has been previously mined, reclaimed, and had bond releases issued.

According to the Maryland Department of Environment ("MDE") Bureau of Mines, and to the best of MDE's knowledge, most parcels associated with the proposed Project were permitted and mined (deep and surface) for coal from the 1970's to approximately 2001. However, mining activities took place prior to these dates, most notably surface mining between the 1940's and 1950's before State permitting laws and regulations were in place for mining activities. In addition, deep mines were prevalent in Garrett County, including this area, dating back to the 1800's with little official documentation. ***Appendix 3*** includes various permits, reclamation status reports, and permit closure/bond release documents that the Bureau of Mines currently has on record. In addition to the fact that deep mines predated current Maryland mining laws, the archive location in Western Maryland had a fire many years ago and archives onsite were lost.

According to available Bureau of Mines records, the mines were generally reclaimed, permits closed, and bonds released from approximately 1976 to 2023 (see ***Appendix 3***). However, for the above reasons, the entirety of the documentation associated with permit closure, reclamation, and bond releases is not available.

Based on property visits and visible remains of the reclaimed areas, it can be assumed the Project Parcels were significantly disturbed and altered such that very little remains in natural condition. The Department of Natural Resources ("DNR") Power Plant Research Program ("PPRP") previously indicated that surface mine reclamation sites are ideal locations for solar generation facility projects, similar to favored redevelopment on brownfield sites.

The Project Parcels are located within the George's Creek and Savage River watersheds which both drain to the North Branch Potomac River. The source of the North Branch Potomac River is at the Fairfax Stone located at the junction of Grant, Tucker, and Preston counties in West Virginia. The confluence of the North and South Branches of the Potomac River is just southeast of Cumberland. From the Fairfax Stone, the North Branch Potomac River flows twenty-seven (27) miles to Jennings Randolph Lake. The North Branch cuts a serpentine path through the eastern Allegheny Mountains. George's Creek flows into the North Branch Potomac River just downstream of the jurisdictional boundary between Allegany and Garrett Counties.

All Maryland stream segments are categorized by sub-basin and are given a "designated use" in the Code of Maryland Regulations 26.08.02.08. The North Branch Potomac River is protected as a Class Use III-P (Use III-P: nontidal Cold Water and Public Water Supply). Tributaries to the North Branch Potomac River are also protected as Class Use III-P. This part of the North Branch Potomac River is located within the Appalachian Plateau physiographic province. Other than the tree clearing proposed, which will be needed prior to project construction, and potential stream crossings to support overhead electrical transmission lines, there is no other activity proposed on the Project which would contribute to the impairment of these waterways and receiving streams. The Project is not located in the Chesapeake Bay Critical Area or within a Tier II Stream and/or Catchment Area.

The Project is not located in the Critical Area (see ***Figure 8***) or within a Tier II watershed and/or Catchment Area (see ***Figure 9***). No grading is proposed during the various Timbering Phases of the project. With average slopes across the Project less than thirteen percent (13%), the vast majority of the LOD will not require mass grading. However, in a few limited areas throughout the LOD, some minor grading will be required to ensure that localized slopes are within the buildable tolerances for solar panel installation and stormwater management guidelines. Minor grading will also be associated with installation of equipment pads, stormwater management facilities and associated drainage systems, and all-weather access roads.

According to the NRCS soils maps, the slopes onsite range from zero percent (0%) to thirty-five percent (35%). As noted above, the majority of the Project area was used for various mining purposes and has since been reclaimed. Due to previous mining and reclamation activities many of the steeper grades onsite were reduced in severity. The soils onsite range from very deep to moderately deep and excessively drained soils to somewhat poorly drained soils. However, based on the previous mining operations onsite, and based on the geotechnical report (***Appendix 4***), it is anticipated the NRCS soil and slope classifications are not completely representative of actual field conditions.

The Project will be designed consistent with the MDE guidelines for stormwater management that govern Environmentally Sensitive Design ("ESD") for utility scale solar projects. The specific ESD practices to be employed on the Site will be non-rooftop disconnection in drainage areas containing average overland slopes of eight percent (8%) or less consistent with Garrett County policy and non-rooftop disconnection with the use of level spreaders for drainage areas that average between eight percent (8%) and thirteen percent (13%). Slopes over fifteen percent (15%) have not been included in the solar panel LOD.

The majority of site disturbance for the Project will be associated with site preparation. Specifically, earthwork will be required for the timbering, clearing and trimming of trees, in addition to grading, and the construction of the concrete pads for the transformers, and inverters. Other property improvements that will have only moderate impact/disturbance to in-situ conditions involve grading improvements and roadbed stabilization to support ingress and egress of construction vehicles, delivery trucks during the construction phase, and for operation and maintenance needs of the Project.

As mentioned above, the total generating capacity for the Project is anticipated to be three hundred (300.0) MWAC output. The Project will consist of approximately one million (1,000,000) ZXM6-NHLDD144 440W solar modules (or similar) as shown in the Solar Array Layout (see ***Figure 3*** and ***Appendix 2***). The array will be installed using a driven or screwed pile supported racking system, utilizing galvanized steel posts with galvanized steel or aluminum structures for mounting the modules. Where necessary, pre-drilling of pile locations or other alternative methods of installation may be performed.

A typical Solar Panel Racking Detail is depicted in ***Figure 4***. The panels are not considered impervious if the disconnection length is the same as or greater than the perpendicular width of rows. The solar arrays will be fixed with rows running east to west and panels facing to the south. In this configuration, the minimum leading-edge height (bottom edge of the modules) will be approximately one-and one-half feet (1.5') from grade, and the maximum (top-edge height of the modules) will be approximately twelve feet (12'); final spacing will be determined during final design. Although other feasible configurations are possible, top-edge heights will not exceed a height of sixteen feet (16'). Per Garrett County International Building Code ("IBC") 2015 structural requirements include a snow load of forty (40) pounds per square foot ("psf") and wind resistance of one hundred fifteen (115) miles per hour ("mph"). Per Allegany County IBC 2006 structural requirements include a snow load of forty (40) pounds psf and wind resistance of ninety (90) mph. Since Jade Meadow III is a solar project, not a commercial building, the Applicant may request a reduction variance consistent with industry accepted standards and practices.

As currently configured, there will be approximately one hundred fifteen (115) inverters where the direct current from the arrays will be converted to alternating current as transmitted by the electric grid. Each inverter skid will include an inverter pad with one (1) inverter and one (1) liquid AC transformer. Each inverter skid will generally represent approximately three and fifteen hundredths (3.15) MWAC with smaller or larger capacity equipment utilized where appropriate. The nameplate capacity of the facility will be three hundred and ninety (390.0) MWDC and three

hundred (300.0) MWAC. The onsite facilities will also include a Project substation and interconnection substation.

The Project will be fully fenced with access provided via new entrances along Aaron Run, Mill Run, Russell, and Westernport roads and existing entrances provided along Aaron Run, Michael, Russell, and Westernport roads. There is no planned need for water and sewer for the Project. The Project will be unmanned and monitored remotely. The only facility onsite will be for equipment storage. Where possible, existing vegetation and tree cover will remain in place around the perimeter of the Project to achieve a buffer. Where needed, additional landscape buffer areas will be provided which will consist of indigenous shrubs, trees, and grass plantings, consistent with the local requirements. In addition, the Applicant will provide for pollinator habitat within the project area.

Figure 1 – Regional Context Map

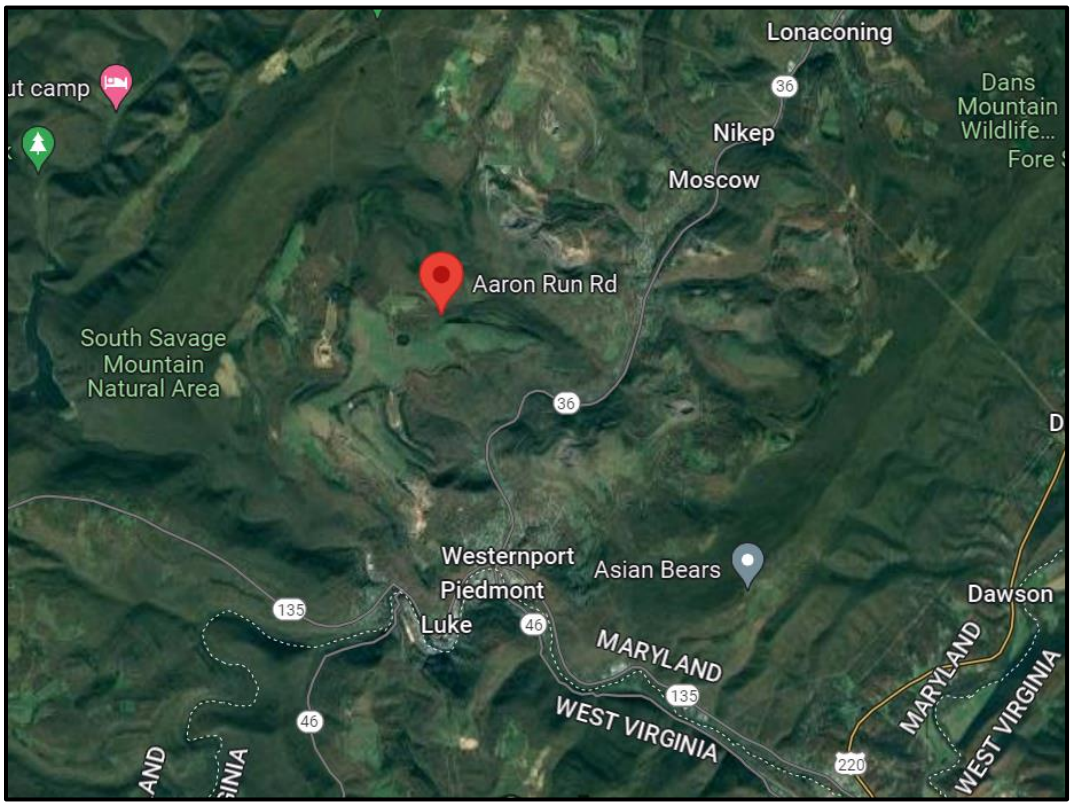


Figure 2 – Local Context Map

Figure 3 – Design Concept and Solar Array Layout

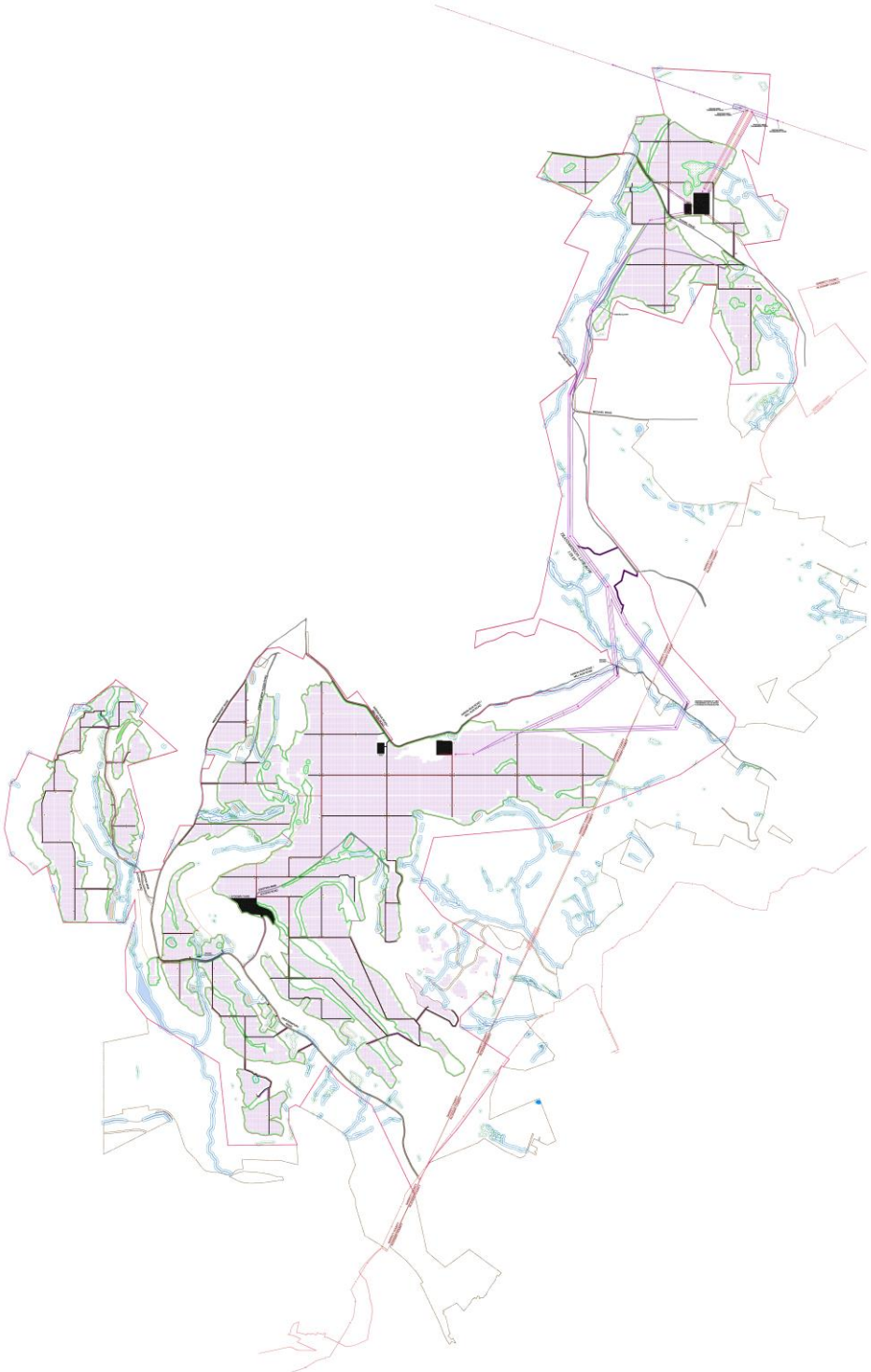


Figure 4 – Solar Array Section [Typical]

NOTES:

1. SYSTEM SPECIFICATIONS:
   TOTAL SYSTEM:
   300.0 MW AC
   DC/AC RATIO: 1.30

2. FIXED-TILT: APPROX. 0.50 GCR

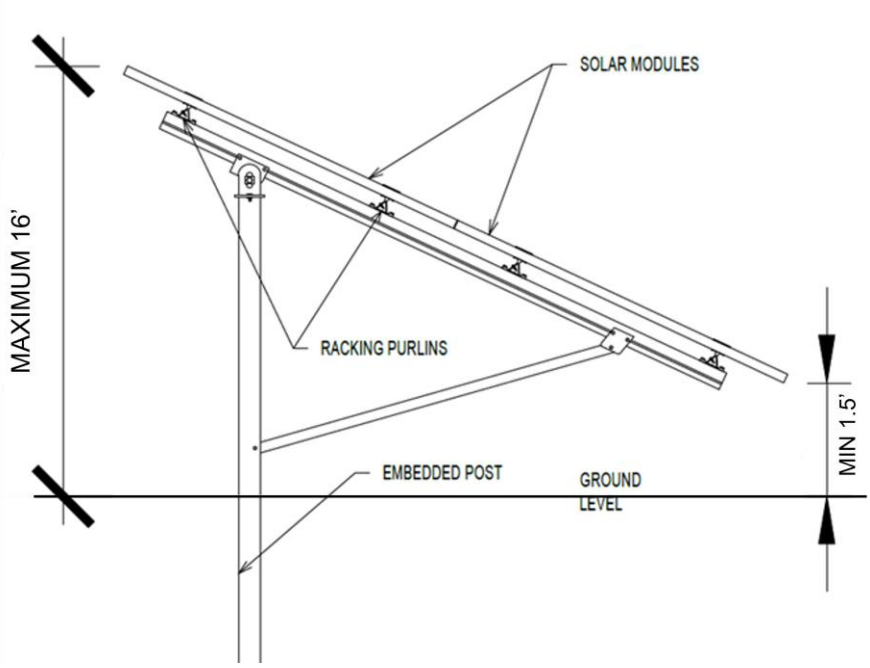
3. FENCE LAYOUT - 8’ HIGH CHAIN LINK, OR SIMILAR, FENCE

1,000,000 ZXM6-NHLDD144 440W SOLAR MODULES OR SIMILAR CONFIGURATION

APPROX. 130,000 POSTS

115 SUNGROW SG3150U-MV 3.15 MW INVERTERS, 12’X25’ CONCRETE PADS PER INVERTER

1 INVERTER AND 1 TRANSFORMER PER PAD



SECTION 2 – STATEMENT OF NEED AND PURPOSE

The State of Maryland enacted broad legal and policy standards in pursuit of more renewable energy generation within its borders. The State's goal and commitment is clear and widely considered to be among the most aggressive in the United States. Maryland's Renewable Portfolio Standard ("RPS") mandates that fifty percent (50%) of Maryland's electricity be generated from renewable energy sources by 2030, which must include at least fourteen and one-half percent (14.5%) solar energy by 2028. The Applicant proposes to construct, own, and operate this three hundred (300.0) MWAC solar generation facility, which will increase the State's current solar electricity output. Economic benefits resulting from the Project will include a capital cost of approximately $500M and approximately three hundred and fifty (350) design, management, and construction personnel working remotely or on the Site at the height of construction during the period from June 2025 to June 2027.

The construction schedule is estimated to be eighteen (18) to thirty (30) months and is expected to be completed during the second half of (H2) 2027. The Applicant is maximizing opportunities to use local resources as part of the design, entitlement, construction, and startup process. The tax revenue yield for a project of this size and type will also be beneficial to the County and State. This Project will contribute to the local economy as well as the State's commitment to more in-state renewable energy generation. It has been reported by the Maryland Power Plant Research Program ("PPRP"), in their Long-term Electricity Report for Maryland dated December 2016, that Maryland imports approximately forty-one percent (41%) of its required energy generation. This Project can help reduce this reliance upon power generated out of state. Given the nature of solar power generation, it will also lead to reduced and more certain costs of electricity produced.

The public benefit of solar facilities like the Project is clearly established by law. At the same time, the State's requirements and commitments in this area are some of the most progressive in the United States. The Applicant, through this proposal, seeks to assist the State in its effort to meet these objectives and to create more renewable energy generation and economic development in Maryland. The Project is expected to inject all its output into the Potomac Edison/FirstEnergy transmission system which serves Maryland.

SECTION 3 – APPLICANT INFORMATION

A. NAME AND ADDRESS OF APPLICANT

Jade Meadow III LLC
c/o Mr. David W. Beugelmans
1001 Fleet Street, Suite 700
Baltimore, MD 21202

B. PERSON AUTHORIZED TO RECEIVE NOTICES AND COMMUNICATIONS

Mr. Michael Svedeman
Sr. Director, Project Development – East
520 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
Phone 917.842.7805
msvedeman@revrenewables.com

Mr. David W. Beugelmans
Mr. Maxwell T. Cooke
Gordon Feinblatt LLC
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Baltimore, MD 21202
dbeugelmans@gfrlaw.com
mcooke@gfrlaw.com

C. COMMUNITY LIAISON OFFICER

Mr. Michael Svedeman
Sr. Director, Project Development – East
520 Maryville Centre Drive, Suite 400
St. Louis, MO 63141
Phone 917.842.7805
msvedeman@revrenewables.com

D. LOCATIONS AT WHICH A COPY OF THE APPLICATION MAY BE INSPECTED BY THE PUBLIC

Garrett County
Department of Community Development
Planning & Land Management Division
203 South Fourth Street-Room 207
Oakland, MD 21550

Allegany County
Department of Planning and Zoning
701 Kelly Rd.
Cumberland, MD 21502

SECTION 4 – STATE AND LOCAL PERMITS AND APPROVALS

(A Matrix of Permits and Approvals required for the Project follows as ***Table 3***.)

The Project does not anticipate impacts to other applicable state, regional, and local plans, or programs. Further, references to each appropriate agency with authority to review, evaluate, or comment on behalf of the plan or program are shown in ***Table 3*** and ERD. There are no other known review agencies anticipated for the Project.

A. MARYLAND PUBLIC SERVICE COMMISSION (PSC)

1. Certificate of Public Convenience and Necessity (CPCN)

This Draft ERD submittal to Garrett County and Allegany County is in accordance with COMAR 20.79.02.02-.04. A Final ERD that supersedes this draft will accompany the petition to the PSC requesting the grant of a CPCN for the Project.

B. INDEPENDENT SYSTEM OPERATOR

1. Interconnection

The Applicant has performed the PJM Generation Interconnection Feasibility Study and System Impact Study, both of which are included in their entirety in ***Appendix 5***. The Facility Study is currently underway. The Project has been assigned Queue Position AG1-363.

The Project will interconnect to the Potomac Edison/FirstEnergy transmission system by tapping into the Black Oak – Hatfield 500 kilovolt ("kV") line with a new three-breaker ring bus interconnection substation and looping the Black Oak – Hatfield 500 kV line into the Point of Interconnection ("POI"). The Applicant will be responsible for constructing all of the interconnection facilities as well as acquiring all easements, properties, and permits that may be required to construct both the new interconnection line tap, collector substation, switchyard, and any associated facilities/appurtenances.

The interconnection transmission line tap will be located approximately eight and two tenths (8.2) miles from the Black Oak substation. It will be installed using 500kV over-head transmission lines to connect back to a new three-breaker ring bus substation located in Garrett County.

C. MARYLAND DEPARTMENT OF THE ENVIRONMENT

1. NPDES General Permit for Construction Activity

National Pollutant Discharge Elimination System ("NPDES") General Permit coverage is required for planned construction activities with a planned total disturbance of one (1) acre or greater. Coverage under the General Permit is obtained by filing a completed Notice of Intent ("NOI") form with the MDE, Water Management Administration. The completed NOI form is considered a formal application for coverage and intent to comply with the terms of the General Permit.

Stormwater NPDES NOI permit coverage will be required for multiple phases of the project and will be obtained prior to construction for each respective phase. The NOI Permit authorizes both stormwater management associated with construction activities and the temporary discharge of site dewatering during construction. NOI coverage will be obtained prior to the start of construction. Both the Applicant and the construction contractor will obtain coverage through the NPDES NOI General Permit for the timbering and construction phases.

2. Construction Dewatering Permit

As part of construction associated with underground electrical cabling, and based on the geotechnical report, it is anticipated that dewatering may be necessary if perched water onsite is encountered. Groundwater was encountered between five feet (5') and approximately fifteen (14.7') in only three (3) of the one hundred fifty (150) geotechnical boring sample profiles. Where groundwater is encountered during construction, it is expected to be de-minimis. Since the average groundwater depth is more than five feet (5') below surface, the Applicant will submit a Groundwater Appropriation Permit Exemption request to MDE.

D. MARYLAND DEPARTMENT OF NATURAL RESOURCES FOREST SERVICE

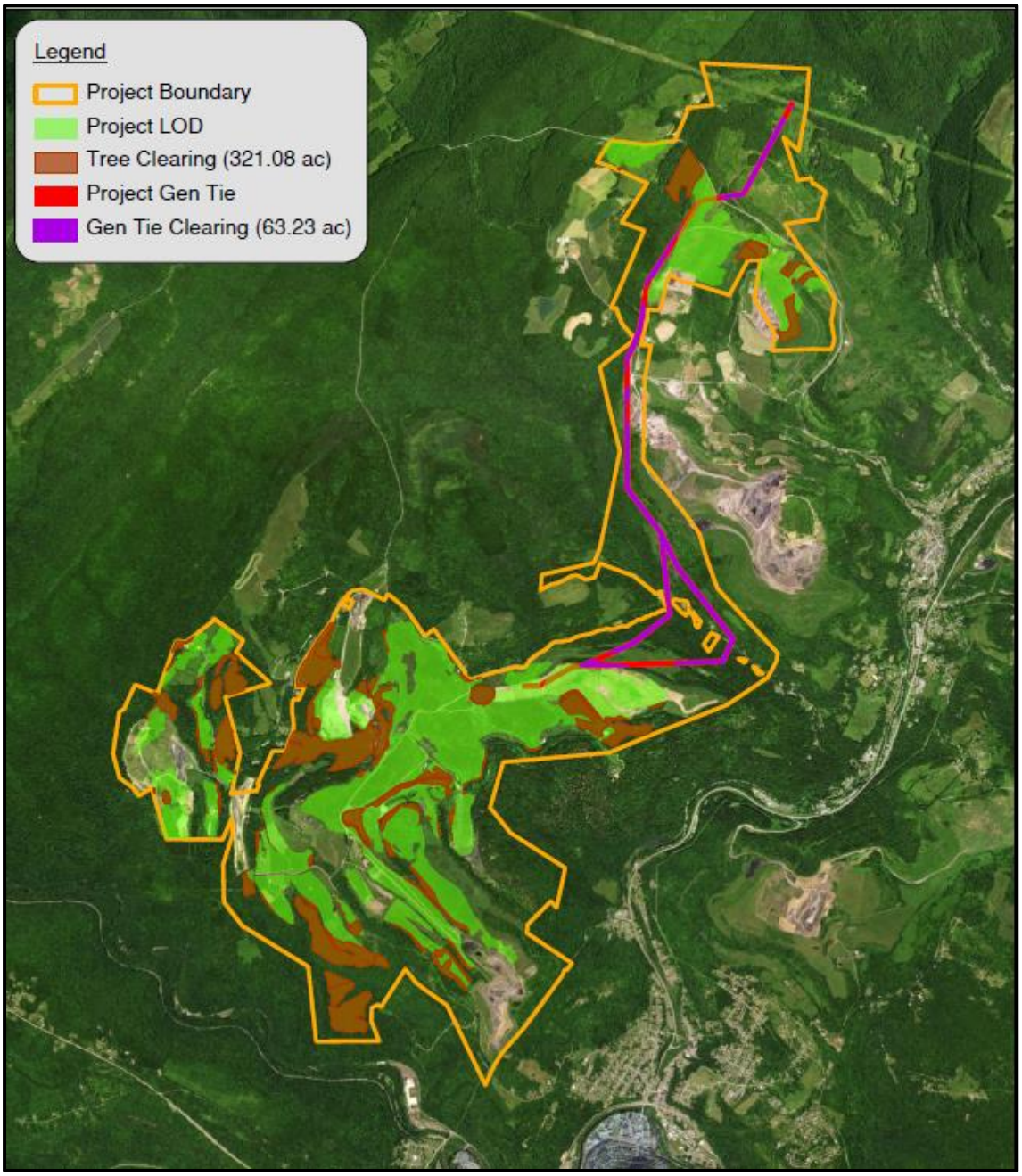
1. Forest Conservation Act

Pursuant to Natural Resources Article § 5-1602(b)(10), the Forest Conservation Act ("FCA") does not apply to the Project because the FCA does not apply to properties located within counties with more than 200,000 acres of forest coverage. Garrett County is comprised of approximately seventy percent (70%) forest coverage (294,000 acres). Additionally, Allegany County has the highest percentage of tree canopy cover in the State.

A significant amount of the property has been timbered numerous times over the years. Approximately one thousand seven hundred eleven (1,711) acres of trees within the Study Area will not be disturbed by the Project. Of the remaining trees, the areas to be timbered

vary greatly in terms of quality and type of forest. These include mid successional medium quality forest (347.88 acres) and early successional medium quality forest (36.43 acres). See ***Figure 5*** below and the simplified FSD included in ***Appendix 6*** for more detail.

Figure 5 – Forest Clearing Constraints Map



E. GARRETT COUNTY PLAN REVIEW AND PERMITTING

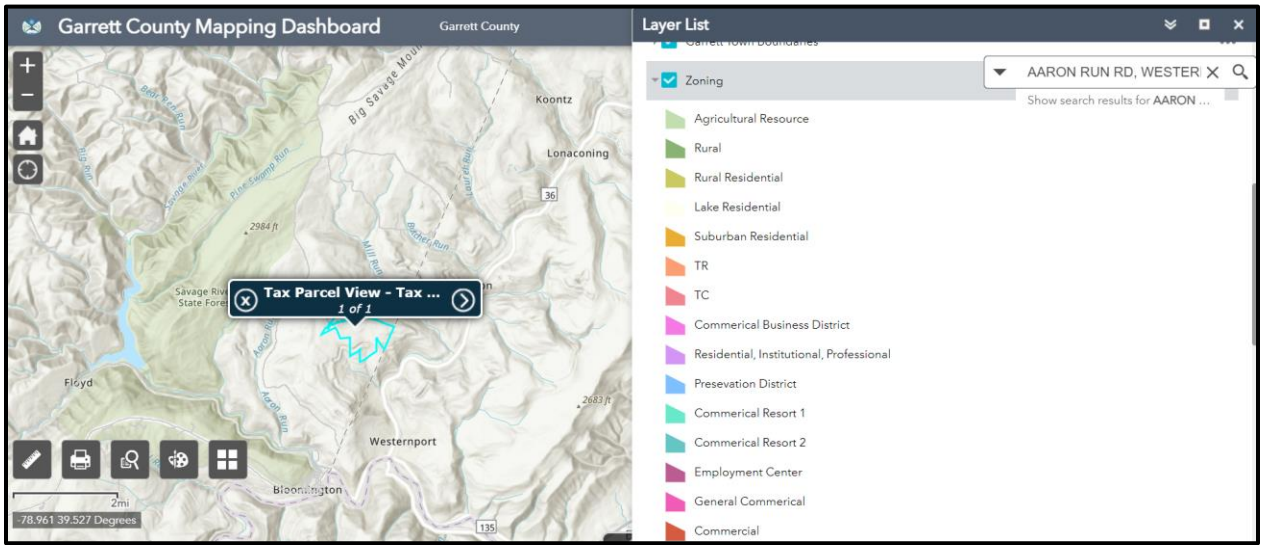
As shown in ***Figure 6*** below, the Project is not located within a zoned district of the County; therefore, a Special Exception is not required, and the Project is permitted by right. The County will process this Project as a major site plan for commercial use. It will require a three (3) step process using engineered site plans signed by a licensed Maryland Professional Engineer.

The principal review process for the County leading to site plan approval rests within the Permits & Inspection Division of the Department of Community Development. The Project will be reviewed for consistency with regulations governing site plan review and approval, sediment and erosion control, stormwater management, Fire Marshal approval, access/entrance permits if needed, etc.

The Permits & Inspection Division provides the information needed to submit permit applications and plans, distributes permit applications and plans to agencies responsible for review, issues permits, and performs required inspections for approved applications.

The Permits & Inspection Division is also responsible for ensuring compliance with all applicable Building Codes and to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control adverse impacts associated with land disturbance, increased stormwater runoff, and encroachment by development onto floodplains.

Figure 6 – Garrett County Zoning Map



1. Site Plan Review/Approval and Local Permitting

Site plan requirements may include, but may not be limited to, ingress/egress, setbacks and buffers, screening, internal drive aisles and access ways, Fire Marshal conditions/requirements, electric code requirements, building code requirements/references, sediment and erosion control, stormwater management, solar panel layouts including inverter locations and switchyards, gen-tie alignment and specifications, and a number of other requirements that parallel the Maryland Environmental Article and associated Annotated COMAR as may be delegated to local jurisdictions for implementation.

As shown on ***Figure 3*** and included in ***Appendix 2***, the Project will include a setback from public road rights-of-way of one hundred feet (100') or more in most locations but no less than a minimum fifty-feet (50'), an eight foot (8') fence that may include one foot (1') of three (3) strand barbed wire around the perimeter located behind the above referenced setbacks, and a fifty-foot (50') setback from streams.

Preliminary timbering/clearing, site grading, and phasing plans will be provided for the Project to the Garrett Soil Conservation District Office ("SCD") and Garrett County Permits & Inspection Division for preliminary review. As currently proposed, it is anticipated that the timbering activities will need to occur in the winter months during the Indiana and Northern Long-Eared Bat inactive season (November 15 to March 31) per U.S. Fish & Wildlife Services ("USFWS") seasonal limitations, clearing and grading will most likely occur in the spring grass growing season using grading units aligned with micro-drainage areas that will average approximately twenty-five (25) to thirty-five (35) acres in size, not to exceed thirty-five (35) acres. This plan will identify proposed grading units, acreage that can be open at one time, and stabilization requirements. Consistent with the MDE sediment and erosion control regulations, fifty percent (50%) of cleared areas will need to be stabilized using MDE temporary stabilization methods before additional acreage can be cleared. Specifically, eighty percent (80%) of cleared areas will need to have vegetative cover or ninety-five percent (95%) of the area will need to be seeded and mulched prior to moving into another grading unit, depending on whether it is within the grass growing season or not, respectively.

The sediment and erosion control plans which will be reviewed and approved by the Garrett SCD will include phasing and sequencing plans per MDE regulations. These plans will maximize the use of laydown areas, minimize truck traffic throughout the construction area, and sequence contractors so that work on solar modules and wiring is preceded by completion of work installing posts and racking. Phasing and sequencing will consist of the following:

1. Timbering Phase (Initial) – installation of perimeter controls prior to timbering.
2. Timbering Phase (Final) – timber harvesting (leaving the stumps in the ground for the clearing and grading phase).

3. Phase I – modification of existing perimeter controls, and installation of remaining perimeter controls, as necessary.
4. Phase II – clearing and grading activities.
5. Phase III (Initial) – installation of solar arrays and related appurtenances, and installation of approved stormwater management practices.
6. Phase III (Final) – removal of perimeter controls and final adjustments to stormwater management facilities.

As previously noted, the Garrett County site plan review and approval process is managed by the Department of Community Development, Permits & Inspection Division. The Permits & Inspection Division will coordinate with the other departments to complete their review of the site plan, including the State Fire Marshal, Environmental Health Services, Department of Public Works – Utilities Division, Department of Public Works – Roads Division, to include services associated with timbering, grading, building, electrical, plumbing, stormwater management, and floodplain, Department of Community Development to include services associated with zoning consistency, State Highway Administration ("SHA"), and MDE.

In summary, the County has a tiered review process including preliminary site plan, final site plan, and construction document approval associated with major site plans. These approvals in part are prerequisite to the issuance of any building permit, timbering permit, grading permit, or electrical permit.

2. Zoning and Comprehensive Plan Consistency

The Project is not located within a zoned district of the County; therefore, a Special Exception is not required, and the Project is permitted by right. The County will process this Project as a major site plan for commercial use. It will require a three (3) step process using engineered site plans signed by a licensed Maryland Professional Engineer.

Allowing a use by right (*i.e.*, as a permitted use) is absolute and establishes consistency with the jurisdiction's comprehensive plan: "[a]n expressly permitted use by zoning designation is tantamount to a legislative finding that the use [is] in harmony with the general zoning plan."[1]

3. Timbering, Grading, Building, and Electrical Permits

A Timbering Permit, Grading Permit, Electrical Permit, and Building Permit will be obtained following construction document approval. Following the site plan and related approvals, final construction documents will be prepared. These plans and specifications will be part of the application to obtain the Timbering, Grading, Electrical, and Building Permits as required by Garrett County and the local SCD Office as may be required.

[1] S.E.W. Friel v. Triangle Oil Co., 76 Md. App. 96, (1988) (internal citations omitted).

In addition to this summary of local processes that relates to the CPCN, ***Table 3*** below outlines the Federal, State and Local permits and approvals associated with these processes.

F. ALLEGANY COUNTY PLAN REVIEW AND PERMITTING

With respect to a portion of the overhead collector line located in Allegany County, the Applicant will complete the local county reviews, if any, required by PPRP's licensing conditions prior to the start of construction.

As shown in ***Figure 7*** below, the underlying zoning for the Project in Allegany County is C. The principal purpose of the nonurban districts (A and C) as it relates to a solar generation facility is "Nonurban districts are designed to accommodate a number of nonurban land uses, including agriculture, forestry, mining, extractive industries, wildlife habitat, outdoor recreation and communication, transmission and transportation services, as well as to protect floodplain areas, steep slope areas, designated wetlands and habitat areas and public supply watersheds from intense urban development."

The Project may be reviewed by Allegany County as a Major Site Plan. All major site plans will be reviewed by the Major Site Plan Review Committee composed of the following: the Public Works Director, the County Engineer, the Utilities Division head, the Roads Division head, the Environmental Health Director, the Land Development Services Division Chief, the Planning Coordinator, the Land Use and Planning Engineer, the District Manager of the Soil Conservation District and a member of the Planning Commission or their designees. Major site plans shall not be considered approved until they receive approval from the Land Use and Planning Engineer, the County Engineer, and the District Manager of the Soil Conservation District or their designees.

Similar to the process in Garrett County, the Allegany County Soil Conservation District will review and approve the sediment and erosion control plans to include phasing and sequencing associated with construction activity within the overhead collector line route.

The Project will be reviewed for consistency with regulations governing site plan review and approval, sediment and erosion control approval, stormwater management approval, Fire Marshal approval, access/entrance permit as needed, etc.

1. Site Plan Review/Approval and Local Permitting

Site plan requirements may include, but may not be limited to, ingress/egress, setbacks and buffers, screening, access ways, Fire Marshal conditions/requirements, electric code requirements, building code requirements/references, sediment and erosion control, stormwater management, gen-tie alignment and specifications, and a number of other requirements that parallel the Maryland Environmental Article and associated COMAR as may be delegated to local jurisdictions for implementation.

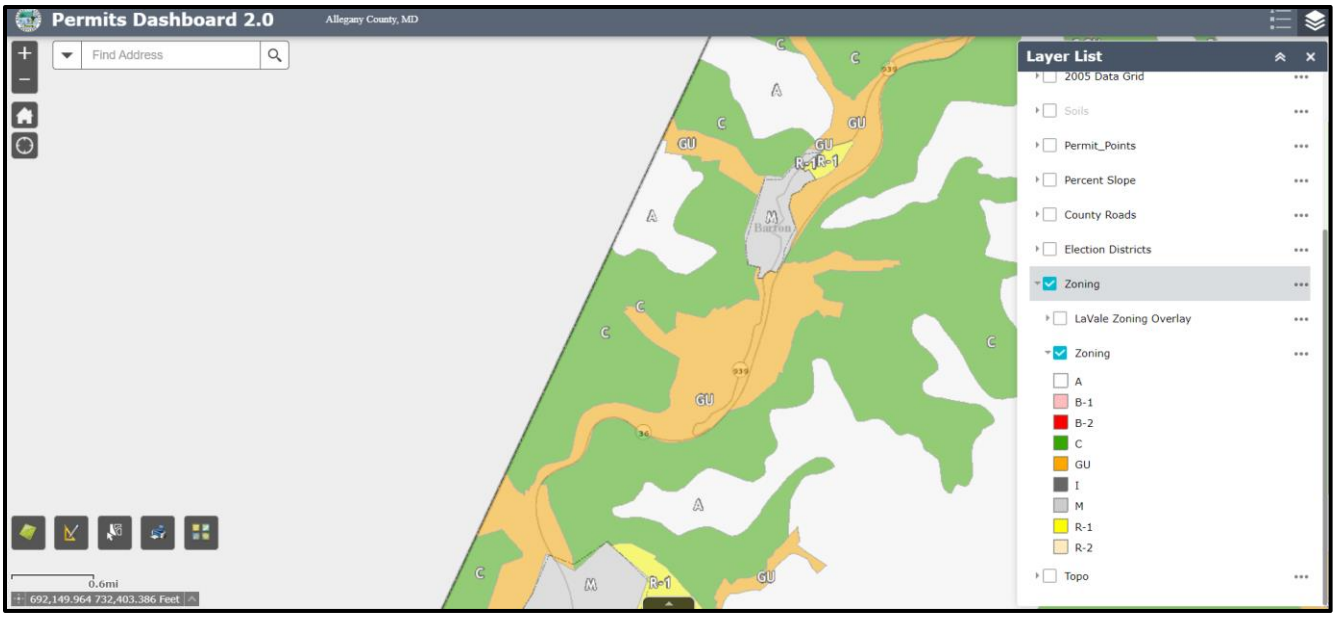
The Allegany County site plan review and approval process is managed by the Department of Planning and Zoning. The Land Development Services Section will coordinate with the other departments to complete their review of the site plan associated with the overhead collector line, including Environmental Health Services, Department of Public Works – Utilities Division, Department of Public Works – Roads Division, to include services associated with timbering, land use, stormwater management, and floodplain, Department of Planning and Zoning to include services associated with zoning consistency, SHA, and MDE.

In summary, the County has a tiered review process including preliminary site plan, final site plan, and construction document approval associated with major site plans. These approvals in part are prerequisite to the issuance of any building permit, or timbering permit.

2. Zoning and Comprehensive Plan Consistency

The Project is located within a zoned district of the County; therefore, Allegany County may require a Special Exception. However, since the Project is pursuing a CPCN license from the PSC, local zoning requirements are preempted such that the Special Exception is not required.

Figure 7 – Allegany County Zoning Map



3. Timbering, Grading, Building, and Electrical Permits

A Timbering Permit, Grading Permit, Electrical Permit, and Building Permit will be applied for after site plan approval as part of the construction document review and approval process. The construction documents will provide the detailed engineering and specifications required to implement the approved site plan leading to necessary Grading, Electrical, and Building Permits.

G. SUMMARY OF PERMITS/APPROVALS

Table 3 – Matrix of State/Local Permits and Approvals

Agency	Permit/Approval	Regulatory Citation (s)	Required For		Status			Waiver, Variance, or Exemption		Comments
			Construction	Operation	Application Contained Herein	Application to be Filed	Permit Approval/ Obtained	Yes	No	
State of Maryland Public Service Commission (PSC)	Certificate of Public Convenience and Necessity (CPCN)	COMAR 20.79	√		√				√	To be prepared at a later date.
PJM Interconnection, LLC	Interconnection	Condition for Issuance of CPCN		√			√		√	PJM Feasibility Study - January 2021, System Impact Study - August 2021, Facility Study Agreement - September 2021
Maryland Department of the Environment (MDE)	NPDES General Permit for Construction Activity	COMAR 26.08, Clean Water Act (CWA) Section 401, 40 CFR 122	√			√			√	Application to be submitted at the time construction documents have been completed.
Maryland Department of Natural Resources Service	Forest Conservation Act (FCA)	Natural Resources Article 5-1602(b)(5)						√		Pursuant to NR Article 5-1602(b)(10), the FCA does not apply to projects in Garrett and Allegany County.

Agency	Permit/Approval	Regulatory Citation (s)	Required For		Status			Waiver, Variance, or Exemption		Comments
			Construction	Operation	Application Contained Herein	Application to be Filed	Permit Approval/ Obtained	Yes	No	
Garrett County	Environmental Site Design Erosion Sediment Control Construction Drawings	Applicability varies according to Local and State Requirements	√			√			√	The County may participate in the CPCN process and provide input regarding the site plan, stormwater management, and sediment and erosion control. Timbering, Grading, Electrical, and Building Permits will be applied for after construction drawings are approved.
Allegany County	Environmental Site Design Erosion Sediment Control Construction Drawings	Applicability varies according to Local and State Requirements	√			√			√	The County may participate in the CPCN process and provide input regarding the site plan, stormwater management, and sediment and erosion control. Timbering, Grading, Electrical, and Building Permits will be applied for after construction drawings are approved.

SECTION 5 – COMAR 20.79.03.01 DESCRIPTION OF GENERATING STATION

A. LOCATION

The Project as proposed by the Applicant is located primarily in Garrett County on various properties in proximity to Westernport and Barton along Route 36/Route 135 (see ***Figure 1***). A small segment (approximately 3,500') of the overhead collector line will be located in Allegany County. The solar Project will consist of twenty-six (26) parcels, many of which are contiguous. Portions of six (6) parcels will be needed for easements to accommodate the various collector lines. As proposed by the Applicant, the Project will be approximately three hundred (300.0) MWAC fixed-tilt solar polycrystalline PV. In addition, the Applicant will be constructing a new substation within the LOD at Property #24.

The Project parcels are shown in ***Table 1*** above and comprise approximately four thousand five hundred seven (4,507.60) acres with an anticipated LOD of one thousand eight hundred ten (1,810.62) acres (see ***Appendix 1*** for more detail on each Property).

The Easement Only parcels are shown in ***Table 2*** above and comprise approximately one thousand three hundred twenty-two (1,322.59) acres (see ***Appendix 1*** for more detail on each Property). Less than four percent (4.0%) of the Properties designated for easement purposes will be used for the Project.

Although the total acreage of the parcels evaluated is five thousand nine hundred thirty-three (5,933.07) acres, not all will be used for Project facilities as appropriate areas have been excluded based on environmental constraints mapping, and for others only a small portion is being used for interconnection purposes. As currently proposed, the Project would include a LOD of approximately two thousand one hundred (2,100) acres, not including the easement areas.

As noted above, total generating capacity for the Project is anticipated to be approximately three hundred (300) MWAC and will consist of approximately one million (1,000,000) ZXM6-NHLDD144 440W solar modules (or similar) as shown in the Solar Array Layout (see ***Figure 3***). The array will be installed using traditional driven or screwed piles as the foundational support for the racking system of choice. These piles will be installed directly into the earth utilizing galvanized steel posts with galvanized steel or aluminum structures for mounting the modules. Where necessary, pre-drilling of pile locations may be performed as required.

A typical Solar Panel Racking Detail is depicted in ***Figure 4***. The panels are not considered impervious if the disconnection length is the same as or greater than the perpendicular width of rows. The solar arrays will be fixed with rows running east to west and panels facing to the south. In this configuration, the minimum leading-edge height (bottom edge of the modules) will be approximately one- and one-half feet (1.5') from grade, and the maximum (top-edge height of the modules) will be approximately twelve feet (12'); final spacing will be determined during final design. Although other feasible configurations are possible, top-edge

heights which will not exceed a height of sixteen feet (16'). Per Garrett County IBC 2015 structural requirements include a snow load of forty (40) psf and wind resistance of one hundred fifteen (115) mph. Per Allegany County IBC 2006 structural requirements include a snow load of forty (40) psf and wind resistance of ninety (90) mph. Since Jade Meadow III is a solar project, not a commercial building, the Applicant may request a reduction variance consistent with industry-accepted standards and practices.

As currently configured, there will be approximately 115 inverters where the direct current from the arrays will be converted to alternating current as transmitted by the electric grid. Each inverter skid will include an inverter pad with one (1) inverter and one (1) transformer. Each inverter skid will generally represent approximately three and fifteen hundredths (3.15) MWAC with smaller or larger capacity equipment utilized where appropriate. The nameplate capacity of the facility will be three hundred and ninety (390) MWDC and three hundred (300) MWAC. The Applicant proposes to connect solar arrays and inverters through overhead and underground electrical connections as appropriate. Where ditches, wetlands or streams are encountered, directional drilling methods, when practicable, will be utilized with bore holes located in uplands outside of buffer areas. The onsite facilities will also include a Project substation and interconnection substation. The POI will be located approximately eight and two tenths (8.2) miles from the Black Oak substation along the 500kV overhead transmission line.

As noted above, the Project parcels are located mostly within the George's Creek and Savage River watershed which both drain to the North Branch Potomac River. The source of the North Branch Potomac River is at the Fairfax Stone located at the junction of Grant, Tucker, and Preston counties in West Virginia. Confluence of the North and South Branches of the Potomac River is just southeast of Cumberland. From the Fairfax Stone, the North Branch Potomac River flows twenty-seven (27) miles to Jennings Randolph Lake. The North Branch cuts a serpentine path through the eastern Allegheny Mountains. George's Creek flows into the North Branch Potomac River just downstream of the jurisdictional boundary between Allegany and Garrett Counties.

<u>George's Creek:</u>
As noted above, a portion of the Project area is within the George's Creek (02141004) watershed which flows into the North Branch Potomac River (02141005). The mainstem of George's Creek is approximately fifteen (15) miles long. The watershed of George's Creek has an area of approximately 47,693 acres. The predominant land uses in the watershed, based on 1997 Maryland Office of Planning land cover data, are forest comprising 34,046 acres, with urban at 4,532 acres, surface mining at 3,259 acres, and agricultural land uses at 5,856 acres. The George's Creek watershed lies in the Allegheny Plateau. Soils in the watershed are primarily Calvin-Gilpin association, gently sloping to steep, moderately deep, well-drained soils; formed over acid, red to gray shale and sandstone.

George's Creek has been impacted by mining, transportation, and improper residential development to the point that it is no longer able to maintain a limited amount of stream

stability. Poor water quality in the George's Creek watershed is primarily due to acid mine drainage, and combined sewer overflows in the upper portion of the watershed. Current assessments indicate that about one third of the watershed's stream miles have degraded water quality associated with acid mine drainage. Surprisingly, George's Creek also maintains some high-quality aquatic habitats. These areas are isolated from each other due to the presence of acid mine drainage seeps throughout the watershed and combined sewer overflows outfalls in the upper portion of the watershed. In addition to the acid mine drainage problems, assessments of the watershed by DNR and MDE have reported significant erosion problems, numerous fish barriers, many flood prone sites, trash dumps, and related issues; many also associated with prior mining activities.

Savage River:

As noted above, a portion of the Project area is located within the Savage River watershed. The Savage River is approximately thirty (29.5) miles long in Garrett County, and is the first major tributary of the North Branch Potomac River from its source.

Tributaries of the Savage River upstream of the Savage River Reservoir include Carey Run, Mudlick Run, Little Savage River, Bluelick Run, Blacklick Run, Warnick Run, Poplar Lick Run, and Bear Pen Run. At the southern end of the reservoir, the U.S. Army Corps of Engineers maintain the Savage River Dam for flood control and recreation. The Savage River supports trout fishing for brown, rainbow, and brook trout. Pine Swamp Run, Dry Run, Middle Fork Crabtree Creek, and Crabtree Creek flow into the Savage River Reservoir. Aaron Run joins the Savage River just upstream of its merger with the North Branch Potomac River.

All Maryland stream segments are categorized by sub-basin and are given a "designated use" in the Code of Maryland Regulations 26.08.02.08. The North Branch Potomac River is protected as a Class Use III-P (Use III-P: nontidal Cold Water and Public Water Supply). Tributaries to the North Branch Potomac are also protected as Class Use III-P. This part of the North Branch Potomac River is located within the Appalachian Plateau physiographic province. The Project is not located in the Chesapeake Bay Critical Area or within a Tier II Stream and/or Catchment Area. Other than the tree clearing proposed, which will be needed prior to project construction, there is no other activity proposed on the Site which would contribute to the impairment of these waterways and receiving streams.

As shown in ***Figure 8*** below, the Project is outside of the Chesapeake Bay Critical Area. Per the MDE Tier II High Quality Waters Map (2022) shown in ***Figure 9***, the Project is located outside of any Tier II streams and/or Catchment Areas. While the Project will need to clear and grade approximately three hundred eighty-four (384) acres of trees, this is not only essential to meet Project capacity requirements, but it is also essential to provide necessary grades to support the placement of panels within the proposed LOD. The environmental outcome from these efforts will provide stormwater management and sediment and erosion control designs that improve site runoff per MDE Guidelines, long-term managed vegetative cover, etc. For these reasons, the Project will not impact the Chesapeake Bay Critical Area or any Tier II streams.

Figure 8 – Critical Area Map

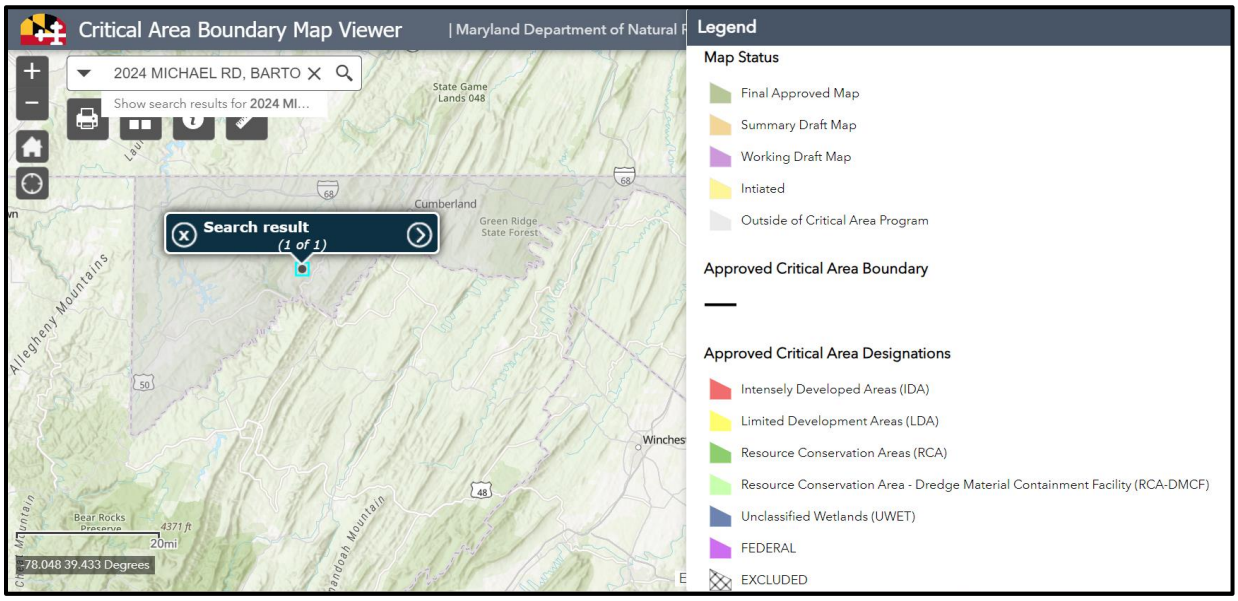
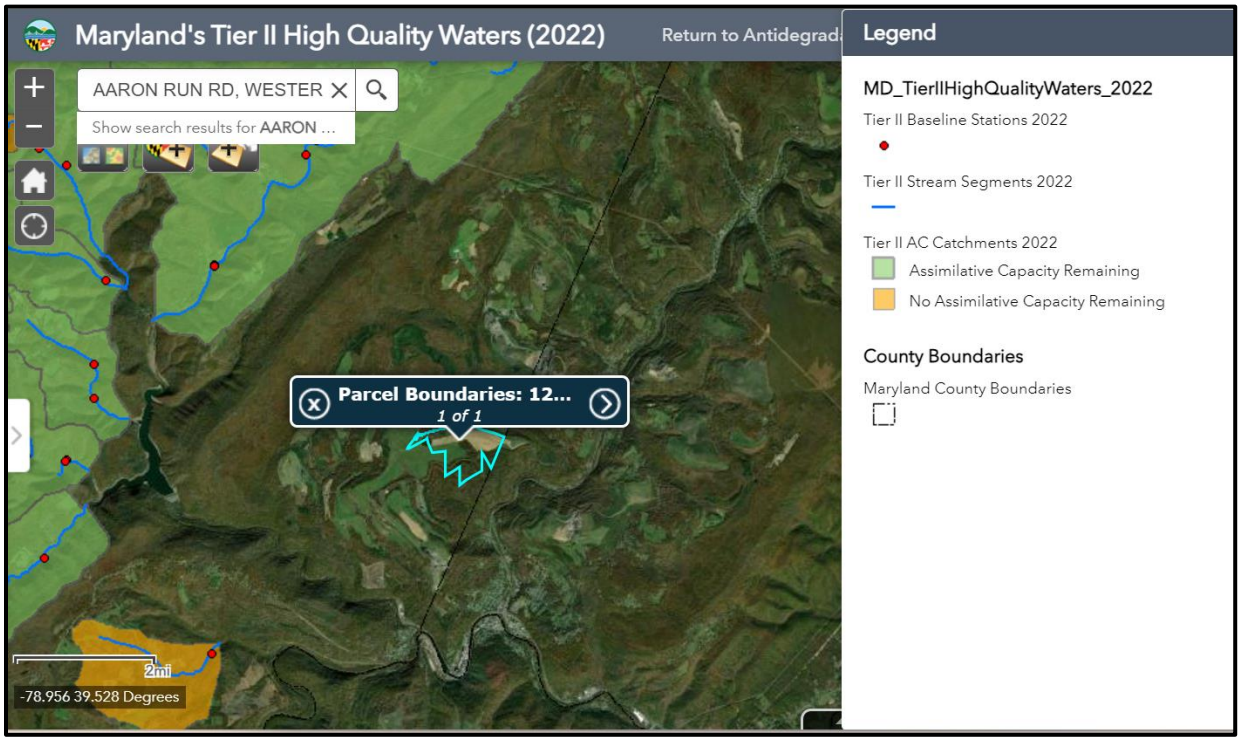


Figure 9 – MDE Tier II High Quality Waters Map



B. DESIGN FEATURES

The total generating capacity for the Project is anticipated to be three hundred (300.0) MWAC. The Project will consist of approximately one million (1,000,000) ZXM6-NHLDD144 440W solar modules (or similar) as shown in the Solar Array Layout (see ***Figure 3*** and ***Appendix 2***). The array will be installed using traditional driven or screwed piles as the foundational support for the racking system of choice. These piles will be installed directly into the earth, utilizing galvanized steel posts with galvanized steel or aluminum structures for mounting the modules. Where necessary, pre-drilling of pile locations or other alternative methods of installation may be performed as required.

A typical Solar Panel Racking Detail is depicted in ***Figure 4***. The panels are not considered impervious if the disconnection length is the same as or greater than the perpendicular width of rows. The solar arrays will be fixed with rows running east to west and panels facing to the south. In this configuration, the minimum leading-edge height (bottom edge of the modules) will be approximately one- and one-half feet (1.5') from grade, and the maximum (top-edge height of the modules) will be approximately twelve feet (12'); final spacing will be determined during final design. Although other feasible configurations are possible, higher top-edge heights will not exceed a height of sixteen feet (16'). The solar arrays will be designed to withstand snow load of forty (40) psf and a minimum wind speed of one hundred fifteen (115) mph (risk category I per IBC 2015 for Garrett County). The overhead collector line will be designed to withstand a wind resistance of ninety (90) mph per Allegany County IBC requirements.

As currently configured, there will be approximately one hundred fifteen (115) inverters where the direct current from the arrays will be converted to alternating current as transmitted by the electric grid. Each inverter skid will include an inverter pad with one (1) inverter and one (1) liquid AC transformer. Each inverter skid will generally represent approximately three and fifteen hundredths (3.15) MWAC with smaller or larger capacity equipment utilized where appropriate. The nameplate capacity of the facility will be three hundred and ninety (390.0) MWDC and three hundred (300.0) MWAC. The onsite facilities will also include a Project substation and interconnection substation.

There is no planned need for water and sewer for the Project. The Project will be unmanned and monitored remotely. The only facility onsite will be for equipment storage. The only water use associated with the operation of this solar energy system will be for relatively infrequent cleaning of the solar modules. Typically, this cleaning utilizes only water sprayed at relatively high speeds to remove dirt and dust from the solar modules. Rainfall greater than one half (0.5) inch per month (which is far less than the average rainfall in Garrett County) is generally accepted as adequate to remove dust from the array and to prevent significant losses due to soiling. If needed, additional water to accommodate panel cleansing needs will be provided using tanker trucks, which will obtain water from a County and/or municipal water supply.

1. Environmental Site Design ("ESD")

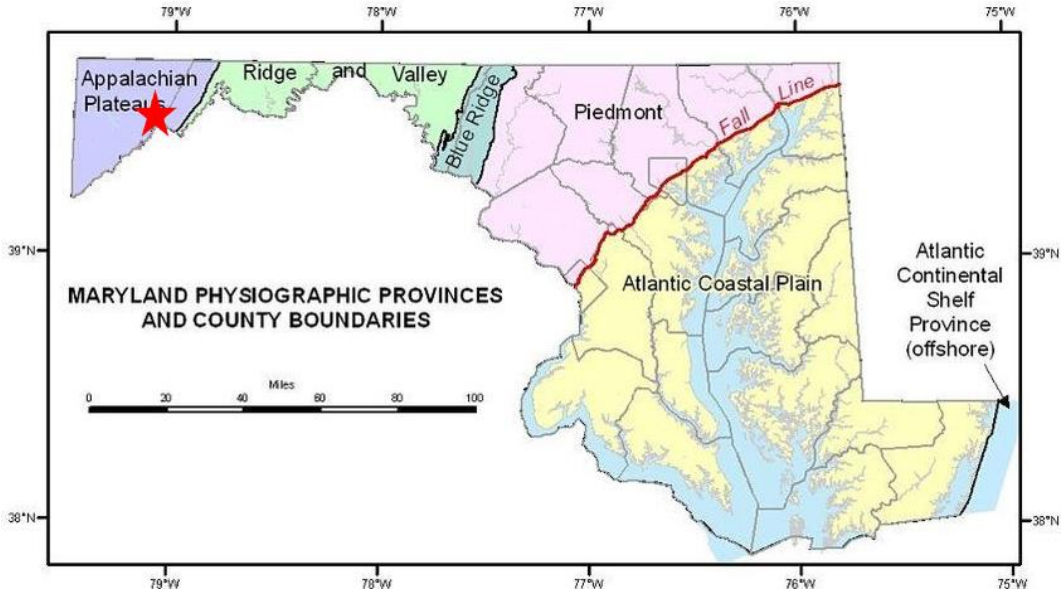
a. ESD Components

i. Soils and Steep Slopes

As noted above, according to the ESRGC Critical Area online mapping tool, the Site is outside the Chesapeake Bay Critical Area. As shown in ***Figure 10***, the Site is within the Appalachian Plateau of Maryland which is located between the Central lowlands to the west and the Ridge and Valley Province to the east. Rock layers in the Appalachian Plateau are virtually horizontal. Both anthracite and bituminous coal are extracted by common mining practices in this area. The formation of the Plateau began during the Paleozoic Era. Regional uplift during this time caused the area to rise altogether without changing the topography of the land. The eastern edge is the highest part of the Appalachian Plateau. The Plateau has a slight slant towards the northwest, making it higher on the eastern side.

A large portion of the Appalachian Plateau is a coal field, which was formed approximately three hundred twenty (320) million years ago during the Pennsylvanian Age. The Plateau was subjected to glaciation during the Pleistocene ice age. As a result, the topography of this section of the plateau is relatively flat in comparison to the rest of the physiographic province. This portion of the Plateau is marked with evidence of a glaciated past including bogs, lakes, and small hills. The topography of the rest of the Appalachian Plateau was created mainly from stream erosion. The result is a rugged landscape, unlike many other plateaus, which includes many narrow stream valleys surrounded by steep ridges.

Figure 10 – Appalachian Plateau



As mentioned above, the Project is predominately located on previously active coal mine areas which were reclaimed to meet MDE site closure requirements. Bond release information and reclamation plans/approvals are included in ***Appendix 3***.

The Project is located within an area characteristic of these Appalachian soils. The soil types identified below will support access roads, drive aisles, and any stormwater structures that may be required. Where possible the existing road system used by the mining operation will remain in place. The structural integrity of these mining roads far exceeds the needs of a solar project.

While the NRCS soils maps show (***Appendix 7***) grades onsite between zero percent (0%) and thirty-five percent (35%), the majority of the Project area was used for various mining purposes and has since been reclaimed. Due to previous mining activity many of the steeper grades onsite have been reduced in severity. For slopes greater than eight percent (8%) which average thirteen percent (13%) or less within the Project LOD, a combination of level spreaders and non-rooftop disconnection credits will be used to meet ESD requirements. Slopes over fifteen percent (15%) have been avoided for the solar array areas, and the array area predominantly averages thirteen percent (13%) or less. The need for additional grading and land disturbance in order to accommodate the solar array installation has been minimized. The majority of grading proposed for the Project is associated with the access roads, inverter pads, and improvements to entrances.

The overall NRCS soils and prime farmland classifications can be found in ***Appendix 7***. As confirmed by the preliminary results of the geotechnical report (see ***Appendix 4***), these soils are suitable to support solar modules, inverters, switchyards, substations, grass covered aisle ways, access roads, and associated drainage and stormwater management.

The perimeter road and internal aisles will be unpaved grass roads except for select all-weather roads to support construction equipment and long-term maintenance using gravel or rock. The eighteen (18) new entrances will be constructed with impervious material to stabilize this area for construction traffic to the Site and will be included in the impervious calculation for the stormwater management ("SWM") report. There will be approximately three- and one-half percent (3.5%) of impervious surface added (approximately 3,218,023 SF). See ***Table 4*** below.

The Project Parcels within the LOD will be planted and maintained in low cover grass vegetation in accordance with site plans approved by Garrett County and included as part of the CPCN submittal process. Landscape buffer plans prepared by a licensed landscape architect will be submitted to the County for review and approval. In addition to the mixture of grass seed, the Applicant is also proposing to incorporate pollinators such as white clover with the selected grasses.

Table 4 – Preliminary Impervious Area Tabulation

Impervious Area Description	Length (FT)	Width (FT)	Area (SF)	Quantity	Total Area (SF)	Comments
Invert/Equipment Pads (Concrete/Gravel)	32	22	704	115	80,960	Inverter Pad Site
Substation Areas (Concrete/Gravel)	-	-	390,000	-	390,000	Dedicated Area for substations
Entrance & Array Field Access Ways (Gravel)	-	-	2,195,250	-	2,195,250	Conceptual / Approximate - Assumes 12' wide roadways. Excludes Grass Access Ways
Racking Posts	-	-	0.20	130,000	26,000	Conceptual / Approximate
Laydown Areas (Gravel)	-	-	517,813	-	525,813	Temporary** Gravel Areas during construction
					3,218,023	SF
				Total Impervious Area	73.88	Acres

**Some Laydown Areas may be permanent, so all Laydown Areas have been included in total to be conservative

b. Impacts to Stormwater During Construction

COMAR 26.17.02.01-1B (1) requires that stormwater quality and quantity controls be implemented for the Project. Guidelines for Water Quality and Quantity through ESD techniques and Best Management Practices ("BMPs") are included in the 2000 Maryland Stormwater Design Manual, Volumes I and II (2000) with Supplement No. 1 and Technical Memo #8 dated March 30, 2018.

The specific ESD practices to be employed on the Site will be non-rooftop disconnection in drainage areas containing average overland slopes of eight percent (8%) or less consistent with Garrett County policy and non-rooftop disconnection with the use of level spreaders for drainage areas that average between eight percent (8%) and thirteen percent (13%). Slopes over fifteen percent (15%) have not been included in the solar panel LOD.

It is also anticipated that some SWM BMPs may be needed to address remaining ESD requirements and/or management of peak discharges. These practices would primarily consist of SWM basins with underdrains that outflow to areas where sheet flow can be achieved. If necessary, MDE approved matting and/or plunge pools may be used to reduce velocities and achieve sheet flow at the discharge locations.

During site preparation (timbering, clearing, and grading/smoothing), sediment and erosion controls will be installed and may also include the need for temporary sediment traps/ponds in combination with the use of super silt fence or equivalent practices.

c. Impacts to Stormwater During Operations

COMAR 26.17.02.01-1B(1) requires that stormwater quality and quantity controls be implemented for the Project. Guidelines for Water Quality and Quantity through ESD techniques and BMPs are included in the 2000 Maryland Stormwater Design Manual, Volumes I and II with Supplement No. 1 (2007) and Technical Memo #8 dated March 30, 2018.

The specific ESD techniques to be employed as referenced above in more detail will consist of non-rooftop disconnection credits, level spreaders, stormwater management basins with underdrains, and sheet flow to outfall locations.

For the ESD Storm Event, the site will mimic a forested site in good conditions for the one (1) year storm by meeting the target volume under the post-development scenario. The installation of the solar array in this geographic area may dictate a combination of standard post installation as well as pre-drilled post installation, with inverters located on small concrete pads. As a result of the proposed design and elevated panel system, vegetation will grow under the panels and essentially the entire field will remain in pervious vegetative cover.

2. Noise and Vibration

a. Impacts of Noise During Construction

Maryland noise pollution standards as referenced in COMAR 26.02.03 provide certain exceptions for noise sources and noise generating activities. During construction of this facility, all noise shall be maintained below the average noise level of ninety decibel (90 dBA) rating during daytime hours at the receiving properties, per Maryland standards (see COMAR 26.02.03.02).

b. Impacts of Noise During Operation

Table 5 below lists the maximum allowable noise levels (in dBA) for receiving land use categories, during project operation (i.e., post development) as specified in the State regulations.

Table 5: Maximum Allowable Noise Levels (in dBA) for Receiving Land Use Categories

Zoning Designation			
	Industrial	*Commercial*	*Residential*
Day	75	67	65
Night	75	62	55

Source: COMAR 26.02.03
Note: Day refers to the hours between 7 AM and 10 PM.
Night refers to the hours between 10 PM and 7 AM.

The Project, once constructed, will have no exposed moving parts. The only noise generated from the electrical equipment at the facility will be from the enclosed transformers, inverters, substations, switchyards, and overhead transmission lines. As solar generating power facilities become more common, more studies have been conducted, which have found a low impact of noise during operation. Typical transformers used in such a solar facility have much less than 50 dBA noise level (when loaded) at one hundred feet (100'). The Project anticipates a very low-level of noise inside the perimeter fence. Noise reduction occurs by about six (6) dBA with every doubling of measurement/receiving distance relative to the manufacturer's standard/reference measurement distance. The Project anticipates a low-level noise inside the perimeter fence. The closest distance between any residential dwelling and the Project switchyard is approximately two thousand feet (2,000'), and approximately one hundred fifty feet (150') to the nearest solar panel.

3. Lighting

Although there are no lighting requirements for the Project, the Applicant may consider minimal lighting for security considerations, or as required through the CPCN review process. The lighting will be fitted with a down shield light fixture.

4. Glare Analysis

Consistent with CPCN conditions, a glare analysis study will be performed including outreach to Maryland Aviation Administration ("MAA") and Federal Aviation Administration /("FAA"). The findings from the Solar Glare Hazard Analysis Tool ("SGHAT") will be included in the Final ERD as submitted to the PSC.

5. Fencing and Buffering

The solar modules will be enclosed and protected using an eight-foot (8') tall chain-link fence around the perimeter that may include one-foot (1') of three (3) strand barbed wire

with access gates at the proposed entrances. The site plan will be reviewed/approved by Garrett County Department of Planning and Land Management.

A buffer/landscape plan will be provided as appropriate and depicted on the site plan submitted as part of the local site plan approval process. As referenced above, the buffer/landscape plan will be included along with other stabilization and landscaping required for the Project. This plan will be reviewed/approved by Garrett County and Allegany County, as applicable.

6. Vegetative Stabilization

Similar to other approved solar projects in the County, the Project will employ low growing turf style grasses that are conducive to growing in partial shade, so that vegetation can be maintained beneath and around the arrays and will be those typically recommended for use by the Garrett County SCD Office.

As noted above, the Project's proposed LOD will be seeded with a combination of pollinator friendly and solar farm appropriate seed mixes. Appropriate planting plans and plant maintenance plans will be submitted to local jurisdictions for review and approval.

7. Transportation

a. Transportation During Construction

Major material and equipment will be delivered by tractor-trailers and offloaded by construction vehicles (lulls, tracked vehicles, and front-loading equipment). Appropriately sized laydown areas, as depicted on the site plan, will be utilized for unloading equipment and materials. Daily construction traffic will include cars, pickup trucks, and other personnel vehicles. Excavation and other equipment will be utilized during construction of the Project, which may include dump trucks, trenching equipment, concrete trucks, front loaders, backhoes, post installation equipment, excavators, and other equipment.

b. Transportation During Operation

There will be limited traffic to and from the solar array during operation. Traffic will mostly associated with maintenance crews for mowing, vegetation control, and facility maintenance. Maintenance of the solar array components will be necessary, along with site visits for any operational issues that may arise during normal operation. The Applicant will monitor any damage to public roadways resulting from the construction or operation of the Project. If any damage occurs, it will be repaired by the Applicant based on State or local specifications.

8. Public Safety

During the local site plan review process, the Applicant will consult with the State Fire Marshal to ensure that health and safety requirements are met. The Project will have eighteen (18) new entrances, will utilize eight (8) existing entrances, and will include a perimeter grass road for emergency vehicle access and/or other internal access lanes. While the Project will be secured with a chain-link fence, Knox-box entry will be provided at all gates for emergency vehicle access. The Project construction documents will include appropriate electrical designs to meet applicable County codes.

As a solar energy system, the Project's operation is not expected to produce, emit, or discharge any significant noise, air pollutants, or water pollutants, which would negatively affect public health or welfare. Additionally, the Project is not expected to generate, transport, store, treat, and/or dispose of hazardous waste as a result of the Project's operation, nor will it have any significant adverse environmental or socioeconomic impacts.

During Project construction the Applicant will ensure any contractor adopts appropriate safety standards, schedules deliveries during appropriate times considering school bus pick-up/drop-off times and identifies an appropriate route for construction traffic and deliveries.

C. OPERATIONAL FEATURES

The operational features will be controlled through a Project Operations & Maintenance Agreement to track performance and monitor the health and safety of the Project. Typical duties and features of this plan are:

- Local and remote control over key features of the electrical system to assure compliance with the Interconnect Agreement and safety of the plant.
- Scheduling, control, and reporting of all onsite maintenance activities.
- Operations center with remote monitoring of performance data and physical systems 365 days a year.
- Prompt dispatch of fire, police, or contractors in the event of emergency.

D. SCHEDULE FOR ENGINEERING, CONSTRUCTION, AND OPERATION

Site plan documents are being prepared for submittal as part of the CPCN review process with Garrett and Allegany County representatives. The engineering and construction documents will include pertinent information regarding the solar modules, inverter pads, construction methods, electrical requirements, ingress and egress, stormwater management, sediment and erosion control, electrical connections, fencing, landscaping and screening, and grading.

Following CPCN and local site plan approval, construction is anticipated to be initiated in June 2025 with completion and operational startup prior to the end of second half of (H2) 2027.

E. SITE SELECTION AND DESIGN

1. **Project Design**
   See description in Section 5.B. above.

2. **Solar Resource Data**
   PV systems ("PVSYST") modeling detail summaries will be included in the Final ERD as submitted to the PSC.

3. **Modeling**
   PVSYST modeling summaries will be included in the Final ERD as submitted to the PSC.

   a. **Soiling and Albedo Losses**
      To be included in the Final ERD as submitted to the PSC.

   b. **Shading**
      To be included in the Final ERD as submitted to the PSC.

4. **Production Estimate Results**
   Production estimate results will be included in the Final ERD as submitted to the PSC.

F. IMPACTS ON THE ECONOMICS OF THE STATE

There will be significant economic benefits resulting from the Project to include a capital cost of approximately $400 to $500M and approximately three hundred and fifty (350) design, management, and construction personnel working remotely or on the Site at the height of construction during the period from June 2025 to June 2027.

The construction schedule is estimated to be eighteen (18) to thirty (30) months and is expected to be completed during the second half of (H2) 2027. The Applicant is maximizing opportunities to use local resources as part of the design, entitlement, construction, and startup process. The tax revenue yield for a project of this size and type will also be beneficial. This Project will contribute to the local economy as well as the State's commitment to more instate renewable energy generation. As noted above, PPRP reports that Maryland imports approximately forty-one percent (41%) of its required energy generation. This Project will help to reduce this reliance on power generated out of state. Given the nature of solar power generation, it will also lead to reduced and more certain costs of electricity produced.

By connecting with the electric distribution system serving Maryland, the Project will contribute towards compliance with the RPS, which mandates that all suppliers that sell electricity at retail in Maryland accumulate solar renewable energy credits in an incrementally increasing percentage.

The Project will feature vegetative screening as required by Garrett County and it will produce no noise or vibration perceptible on neighboring properties. As a result, the Project will not have a material negative impact on neighboring property values.

G. IMPACT ON THE STABILITY AND RELIABILITY OF THE ELECTRIC SYSTEM

As noted above, the Applicant has performed the PJM Generation Interconnection Feasibility Study and System Impact Study, both of which are included in their entirety in ***Appendix 5***. The Facility Study is currently underway. The Final ERD will include complete copies of any additional documents received.

H. LOCATION AND MAJOR DESIGN FEATURES OF ELECTRIC SYSTEM UPGRADE

The Project will interconnect to the Potomac Edison/FirstEnergy transmission system by tapping into the Black Oak – Hatfield 500 kV line with a new three-breaker ring bus interconnection substation and looping the Black Oak – Hatfield 500 kV line into the POI. The Applicant will be responsible for constructing all of the facilities on its side of the POI as well as acquiring all easements, properties, and permits that may be required to construct both the new interconnection line tap, collector substation, switchyard, and associated facilities/appurtenances.

The interconnection transmission line tap will be located approximately eight and two-tenths (8.2) miles from the Black Oak substation. It will be installed using approximately one-half (0.5) miles of 500kV overhead transmission lines.

I. IMPLEMENTATION SCHEDULE FOR THE PROJECT

The Project schedule includes the following approximate milestones:

- Engineering and Permitting: October 2023 through May 2025
- Start of Construction: Approximately Mid 2025
- Start of Commercial Operation: Approximately H2 2027

SECTION 6 – COMAR 20.79.03.02 ENVIRONMENTAL INFORMATION

A. GENERAL INFORMATION

1. General Description of the Site and Adjacent Areas

As currently proposed by the Applicant, the Project will produce approximately three hundred (300) MWAC. Based on limitations and environmental constraints, the Project LOD includes approximately two thousand one hundred (2,100) acres (see ***Figure 3***). In addition, the Applicant will be constructing a new substation within the LOD at Property #24.

The Project has contracted to lease the underlying parcels from the current property owners via multiple Lease Agreements. The Project Parcels consist of previously mined areas, reclaimed areas, wooded and/or previously timbered areas, and open fields.

According to the MDE Bureau of Mines, and to the best of their knowledge, the majority of parcels associated with the proposed Project were permitted and mined (deep and surface) for coal from the 1970's to approximately 2001. However, mining activities took place prior to these dates, most notably surface mining between the 1940's and 1950's before State permitting laws and regulations were in place for mining activities. In addition, deep mines were prevalent in Garrett County, including this area, dating back to the 1800's with little official documentation. ***Appendix 3*** includes various permits, reclamation status reports, and permit closure/bond release documents that the Bureau of Mines currently has on record. In addition to the fact that deep mines predated current Maryland mining laws, the archive location in Western Maryland had a fire many years ago and archives onsite were lost. According to available Bureau of Mines records, the mines were generally reclaimed, permits closed, and bonds released from approximately 1976 to 2023 (see ***Appendix 3***). However, for the above reason, all of the documentation associated with permit closure, reclamation, and bond releases is not available.

Based on property visits and visible remains of the reclaimed areas, it can be assumed the Properties were significantly disturbed and altered such that very little remains in its natural condition. For previously mined areas which have been reclaimed, vegetative cover differs greatly depending on how recently the area was mined, reclaimed, timbered, etc. Since existing mining roads are required to be maintained per conditions of permit closure, many of these roads will be maintained for Project construction and long-term operation and maintenance. The existing sediment and erosion control basins located along existing roadbeds will be maintained in their current condition, where needed for the Project, to continue to serve the sediment and erosion control needs.

As discussed elsewhere in this ERD, the Properties are not located within a Chesapeake Bay Critical Area, Tier II watershed and/or Catchment Areas, protected watershed, reservoir, or other impoundment drainage area. All field located wetlands have been

avoided and a thirty-five-foot (35') buffer has been established around the perimeter of these features. The Project will maintain a minimum fifty-foot buffer (50') from blueline streams, ephemeral streams, and intermittent streams.

Site information contained in this report is currently being reviewed with various regulatory agencies including the DNR, USFWS, Maryland Historical Trust ("MHT").

a. Geology/Soils

According to the NRCS soils map, the soil onsite range from very deep to moderately deep and excessively drained soils to somewhat poorly drained soils. The majority of soils within the proposed LOD consist of Dekalb and Gilpin very stoney loams, Gilpin channery silt loam, and Cookport and Ernest very stony loams. The remaining soils onsite consist of Wharton silt loam, Ernst silt loam, Cavode silt loam, and Brinkerton and Andover very stony loam soils. Overall site evaluations (approximately 6,000 acres) contained large areas where slopes averaged under thirteen percent (13%).

Based on the previous mining operations onsite and based on the geotechnical report (***Appendix 4***), it is anticipated the NRCS soil and slope classifications are not completely representative of actual field conditions. Grades in excess of fifteen percent (15%) have been excluded from the solar array panel LOD. Grading associated with the tree clearing on this brownfields site will result in average slopes of thirteen percent (13%) or less, which will primarily use non rooftop disconnect credits and level spreaders.

The full soils report and prime farmland classification can be found in ***Appendix 7***. Based on the preliminary results of the geotechnical report (***Appendix 4***), these soils are suitable to support solar modules, inverters, switchyards, substations, grass covered aisle ways, access roads, and associated drainage and stormwater management features.

b. Land Use and Cover

As noted above, a significant amount of the LOD has been heavily mined for several decades. Since areas have been reclaimed there is a combination of open fields, groupings of immature trees, and low-quality forest where timbering has occurred. In addition, parcels may include abandoned buildings and ancillary farm buildings/structures to support previous and ongoing farm operations. As noted elsewhere in this Report, the Project Parcels are not within the Chesapeake Bay Critical Area, not within a Tier II stream and/or Catchment Area, is located in FEMA Flood Zone A and Zone X. The Project is located within an area of Garrett County not subject to zoning regulations, and the overhead collector line within Allegany County is zoned C (Conservation) which allows for transmission services.

As a result of the previous mining activity, selective timbering to establish better grades will provide improved drainage, stormwater management, sediment and erosion

control, and vegetative cover. There are no other unique land uses or covers which would create any type of conflict or impairment for the Project.

c. **Stream Buffers and Floodplains**

The Project Parcels are located within three (3) FEMA FIRM's as shown in ***Table 6*** below. For more details on each individual parcel please see ***Appendix 1***.

Table 6 – FEMA FIRM Information

FEMA FIRM Number	Panel	Map Date
24023C0215D	215 of 450	10/2/2013
24023C0225D	225 of 450	10/2/2013
24023C0350D	350 of 450	10/2/2013

The Project Parcels are located within either a FEMA Flood Zone A or Flood Zone X. FEMA Flood Zone A is classified as "*The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood."* In Zone A, no base flood elevations were determined. Per FEMA Flood Zone definitions, this zone is a high-risk area. FEMA Flood Zone X is classified as "*Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood*". Per FEMA Flood Zone definitions, this zone is a moderate to minimal risk area.

The Project Parcels are located mostly within the George's Creek and Savage River watershed which both drain to the North Branch Potomac River. The source of the North Branch Potomac River is at the Fairfax Stone located at the junction of Grant, Tucker, and Preston counties in West Virginia. The confluence of the North and South Branches of the Potomac River is just southeast of Cumberland. From the Fairfax Stone, the North Branch Potomac River flows twenty-seven (27) miles to Jennings Randolph Lake. The North Branch cuts a serpentine path through the eastern Allegheny Mountains. George's Creek flows into the North Branch Potomac River just downstream of the jurisdictional boundary between Allegany and Garrett Counties.

All Maryland stream segments are categorized by sub-basin and are given a "designated use" in the Code of Maryland Regulations 26.08.02.08. The North Branch Potomac River is protected as a Class Use III-P (Use III-P: nontidal Cold Water and Public Water Supply). Tributaries to the North Branch Potomac are also protected as Class Use III-P. This part of the North Branch Potomac River is located within the Appalachian Plateau physiographic province. The Project is not located in the Chesapeake Bay Critical Area or within a Tier II Stream and/or Catchment Area. Other than the tree clearing proposed, which will be needed prior to project construction,

there is no other activity proposed on the Site which would contribute to the impairment of these waterways and receiving streams.

ECS Mid-Atlantic LLC ("ECS") conducted field investigations during October and November 2023 to locate wetland and waterway features. The result of this field work and resource mapping are included in ***Appendix 8***. ECS observed approximately twenty-five (25.20) acres of potentially jurisdictional wetlands and approximately ninety-two thousand eight hundred forty-one (92,841) linear feet of potentially jurisdictional streams within the subject property. Additionally, ECS identified a total of forty (40) presumed manmade features associated with onsite mining activities and agricultural practices totaling approximately ten (10.21) acres. A thirty-five-foot (35') buffer has been placed around wetland features. A fifty-foot (50') buffer has been placed around all streams.

MDE's Mr. Matt Radcliffe of the Nontidal Wetlands Program and representatives from ECS and H&B Solutions conducted a desktop review of the ECS Wetland Determination Report and completed a site visit on April 22, 2024, to field review and confirm the identified features. ECS's report of findings is included as ***Appendix 8***. The Project has been reviewed by the MDE and a determination is pending regarding wetlands and waterways avoidance as part of the Project. MDE's determination will be included in the final ERD submitted to the PSC.

d. Flora Resources

Although many coal mines in the area have been reclaimed, the impacts to the watershed and wildlife remain. This area can generally be characterized as having a mix of mined land, meadow, logged forest, shrub land, and forest.

Specifically, the area consists of uplands and valleys of mixed land use characterized by woodlands and agriculture. Historically, the natural vegetation within this region was primarily Appalachian Oak Forest dominated by white oak, red oak, and mixed indigenous forest. The existing forests include evergreen trees and related woodlands. Some of the most common species in the area include American basswood, tulip poplar, sugar and red maple, and red, white, and chestnut oaks. Some vegetation species unique to the Mid-Atlantic Region include black maple, smooth azalea, winterberry, redbud, great Solomon's seal, black ash, burning bush, serviceberry, and flowering dogwood. Grasses predominate, but shrub/brush vegetation also occurs. Species found within this habitat are tulip poplar, black locust, fire cherry, blackberry, sweet clover, thistle, and crown vetch. Many wildflowers are also found in the area, including snow trillium, jack-in-the-pulpit, violets, painted trillium, and fireweed.

Construction of a utility scale solar project at this site would be considered far less impacting to the natural flora of the area than the years of mining activity that occurred in the past.

e. Fauna Resources

Although there is potential habitat for the Indiana Bat or the Northern Long-Eared Bat to occur in Garrett and Allegany County, the onsite forest is considered low quality habitat to non-habitat for these species and the likelihood that these species would occur onsite is very low.

The common species of mammals include white-tailed deer, black bears, gray, red, flying and fox squirrels, gray and red foxes, raccoons, opossums, ground hogs, bobcats, and cottontail rabbits. Other small mammals attempting to inhabit tributaries within the watershed include the beaver, mink, and muskrats. Various birds such as woodcock, grouse, and a variety of songbirds can be found in the area. Fish populations have been increasing due to improvements in the regional water quality. Trout can be found year-round. Other fish species found within the watershed include small mouth bass, lake trout, white sucker, and walleye.

Most of the construction activity will take place in previously disturbed portions of the site, which have fairly low-quality wildlife habitat in terms of food resources and cover, except for a few small areas supporting sensitive habitat as identified below.

In summary, given the previous and ongoing disturbance to the site, the design of the Project will minimize ongoing impacts to the site and surrounding ecology. No significant ecological impacts are expected to occur as a result of Project construction and operation.

f. Other Sensitive Areas

The Applicant conducted a preliminary desktop review for threatened and endangered species in Garrett and Allegany County using the USFWS Information for Planning and Consultation (IPaC) tool. The results are identified in ***Table 7*** below.

Table 7 – Threatened and Endangered Species

Group	Name	Status
Insects	Monarch Butterfly (*Danaus Plexippus*)	Candidate
Mammals	Indiana Bat (*Myotis Sodalis)*	Endangered
Mammals	Northern Long-Eared Bat (*Myotis Septentrionalis*)	Endangered

As noted above, the Applicant contacted USFWS for an official site-specific review and consultation for formal determination of no impact to threatened and endangered species prior to Project construction (see ***Appendix 9***). DNR review is currently underway.

2. Summary of Environmental and Socioeconomic Effects

According to the Maryland Inventory of Historic Properties via the MERLIN GIS Website, in addition to the historic properties located in Luke, Westernport, Barton, and Lonaconing, there are several additional properties within a mile of the Project on the MHT Inventory of Historic Properties as shown in ***Table 8*** below.

Table 8 – MHT Inventory of Historic Properties

Site Name	Site Number	Site Address
Luke Historic District	AL-VI-D-306	
Luke Frame House	AL-VI-D-218	Grant Street
Allen Luke House	AL-VI-D-216	Grant Street
Wilson Log Cabin	AL-VI-D-212	Michael Road
House	AL-VI-D-211	Poplar Street
Hammond's Addition Historic District	AL-VI-D-307	
George L. Michaels Farm	G-I-C-086	2091 Westernport Road
Charles Michaels Farm	G-I-C-087	3122 Westernport Road
Carder Farm	G-I-C-096	3385 Westernport Road SW
James B. Watson, Jr. House	G-I-C-073	4208 Westernport Road SW.
Junior W. Fazenbaker Farm	G-I-C-095	877 Aaron Run Road
John Broadwater Farm	G-I-C-097	Aaron Run Road
Howard Michael Farm	G-I-C-022	Aaron Run Road
Paul G. Broadwater House	G-I-C-024	Aaron Run Road
Morris Speen House	G-I-C-023	Aaron Run Road
Unknown	AL-VI-C-291	Mill Run Road

Site Name	Site Number	Site Address
Dishong Frame House	AL-VI-C-292	Mill Run Road
Harmon Broadwater House	AL-VI-C-290	Mill Run Road
Duckworth-Dishong Frame House	AL-VI-C-289	Mill Run Road
Joseph Baker House	AL-VI-C-288	Mill Run Road
Charles E. Ginniman House	G-I-C-043	Michael Road
Sears & Roebuck House	G-I-C-042	2714 Michael Road
James E. Broadwater House	G-I-C-041	3474 Russell Road
Michael Road House	G-I-C-040	Michael Road & Bartlett Road
Russel House, site	G-I-C-094	Russell Road
Charles Magruder House	G-I-C-069	Russell Road
Raymond Crawford House, site	G-I-C-068	Russell Road
Paul Colmer Farm	G-I-C-067	987 Russell Road

The Applicant has submitted to MHT for historical and archaeological reviews associated with the proposed Project. MHT's determination will be included in the Final ERD as submitted to the PSC.

a. Environmental Resources

The Project is not located in the Chesapeake Bay Critical Area or Tier II stream and/or Catchment Area and does not impact jurisdictional waters. The Project has been reviewed by the MDE and a determination is pending regarding wetlands and waterways avoidance as part of the solar array design. All field located wetlands have been avoided and a thirty-five-foot (35') buffer has been established around the perimeter of these features. The Project will maintain a minimum fifty-foot buffer (50') from blueline streams, ephemeral streams, and intermittent streams. In summary, there are no environmental constraints that have been impacted within the LOD except for potential crossings needed to support overhead electrical transmission lines. Transmission poles, tower structures, and tower foundations will be placed outside of environmental features and their applicable buffers.

b. Cultural Resources

As noted above, the Applicant has submitted to MHT for historical and archaeological reviews associated with the proposed Project. Final determinations will be included in the Final ERD as submitted to the PSC.

c. Historic Building Environment

As noted above, the Applicant has submitted to MHT for historical and archaeological reviews associated with the proposed Project. Final determinations will be included in the Final ERD as submitted to the PSC.

d. Archeological

As noted above, the Applicant has submitted to MHT for historical and archaeological reviews associated with the proposed Project. Final determinations will be included in the Final ERD as submitted to the PSC.

e. Consultation with Consulting and Interested Parties

The Applicant has initiated consultation with Garrett County, MHT, USFWS, DNR, and MDE. As the Project proceeds, additional consultations will be pursued with various State Agencies, including PPRP, MDE, Allegany County, and others.

3. Environmental Studies

a. Routine Wetlands Determination Study

As noted above, ECS conducted field investigations during October and November 2023 to locate wetland and waterway features. The result of this field work and resource mapping are included in ***Appendix 8***. ECS observed approximately twenty-five (25.20) acres of potentially jurisdictional wetlands and approximately ninety-two thousand eight hundred forty-one (92,841) linear feet of potentially jurisdictional streams within the subject property. Additionally, ECS determined a total of forty (40) presumed manmade features associated with onsite mining activities and agricultural practices totaling approximately ten (10.21) acres. A thirty-five-foot (35') buffer has been placed around wetland features. A fifty-foot (50') buffer has been placed around all streams.

MDE's Mr. Matt Radcliffe of the Nontidal Wetlands Program and representatives from ECS and H&B Solutions conducted a joint Site visit on April 22, 2024, to confirm the details of ECS's Wetland Field Assessment Report. During a site visit MDE concurred with the majority of ECS's jurisdictional field determinations and requested a few modifications. The report was updated (see ***Appendix 8***) as well as the constraints plan (***Figure 3***) and provided to MDE for their final review and written confirmation of avoidance and minimization of these features. MDE's determination is pending and will be included in the Final ERD as submitted to the PSC.

To summarize, although there are wetlands and streams onsite, these areas have been avoided in the array layout without impacting the acreage needed to meet capacity requirements.

b. Natural Resources Inventory Plan

A summary of the preliminary environmental findings follows:

- The Project is not within the Chesapeake Bay Critical Area or Tier II watersheds and/or Catchment Areas.
- It is anticipated no wetlands permits will be required.
- The Project is located on FEMA FIRM Numbers 24023C0215D, Panel 215 of 450, Revised 10/2/2013; 24023C0225D, Panel 225 of 450, Revised 10/2/2013; and 24023C0350D, Panel 215 of 350, Revised 10/2/2013. As noted above, according to FEMA FIRM the Properties are either within FEMA Zone A or Zone X.
- According to the NRCS soils maps, the soils onsite range from very deep to moderately deep and excessively drained soils to somewhat poorly drained soils.
- Slopes exceeding fifteen percent (15%) or more have been excluded from the solar panel LOD.

All of the other environmental/regulatory considerations including habitat, flora/fauna, site plan, stormwater management, sediment and erosion control, etc. can be successfully addressed with careful consideration for the constraints identified in this report.

In addition to the CPCN, the Project will require NPDES Permit coverage and other State Regulatory Approvals including conformance with stormwater management and sediment and erosion control requirements. These permits/approvals will be obtained as the Project progresses through the local site plan review process.

c. Environmental Review Request

As noted above, the Applicant contacted USFWS for an official site-specific review and consultation for formal determination of no impact to threatened and endangered species prior to Project construction (see ***Appendix 9***). DNR review is currently underway and will be included in the Final ERD as submitted to the PSC.

d. Geotechnical Investigations

ECS performed a preliminary geotechnical analysis to demonstrate the Site is suitable to support the proposed solar generation facility. The Preliminary Geotechnical Assessment is included in ***Appendix 4***. One hundred fifty (150) soil test borings were drilled to point of refusal but no deeper than twenty-five feet (25') below existing grades. As noted in the ECS report, five (5) stratums were identified which include surficial cover, fill, natural soil, weathered rock, and bedrock. Additionally, "*Auger*

refusal, was encountered in 54 of the soil borings, at depths between 2.0 and 19.5 feet below existing grades. Of these, 32 of the soil borings encountered refusal within the existing fill materials. The auger refusal depths are anticipated to be the depth to bedrock and/or boulders within the existing fill." Based on site conditions, pre-drilling of pile locations may be performed where needed.

Groundwater was encountered between five feet (5') and approximately fifteen (14.7') in three (3) borings. Based on this information it is expected that during electrical installation, perched and/or groundwater may be encountered, and dewatering practices will likely be required. Where groundwater is encountered during construction, it is expected to be de-minimis, and since the average groundwater depth is more than five feet (5') below surface, the Project should qualify for Groundwater Appropriation Permit Exemption by MDE.

In general, the findings indicate the soils onsite can support the proposed solar generation facility for posts, pads to support inverters/transformers, switchyards, substations, internal grass covered drive aisles, select all-weather roads, and related sediment and erosion controls.

4. Ability to Conform to Applicable Environmental Standards

The Project's design and construction will require review by state and local authorities through the CPCN process. The Project will also comply with various federal and state environmental regulatory requirements as applicable. Based on preliminary analysis the Project has avoided identified environmental constraints and it is expected that the final design will meet applicable federal, state, and local regulations.

B. AIR QUALITY

1. Compliance with Federal or State Air Quality Standards

As a solar energy system, the Project will emit no pollutants during its operation, and the below listed standards, provisions, and requirements will not be applicable.

- State or Federal ambient air quality standards.
- State or Federal emission standards.
- Federal new source performance standards.
- Federal emission standards for hazardous air pollutants.
- Prevention of significant deterioration and new source review provisions.
- Any requirements to obtain emission offsets, allowances, and reduction credits.

a. Air Quality During Construction

The primary air-quality consideration during construction will be dust from non-point sources such as earthwork and construction traffic on unpaved roads. This type of dust is described as fugitive dust. Fugitive dust is expected to be less than a normal construction project since this Project will not require excessive earthwork activities and any necessary controls will be included in the sediment and erosion control plans. Other potential sources of pollutants during construction are mobile internal combustion engines from earthwork equipment and an increase in vehicle traffic by workers. Emissions from these sources will be minimized.

b. Air Quality During Operation

The Project, like all solar generation facilities, will not generate air pollution.

2. Impact on Deterioration Areas and Nonattainment Areas

The Project will have no impact on any attainment or nonattainment areas of the State.

3. Requirements Under COMAR 26.11

The provisions of COMAR 26.11 will not be applicable to the Project as the facility will not emit air pollutants.

C. WATER QUALITY AND APPROPRIATION

1. Availability of Surface Water and Groundwater

There is limited need for water and no need for sewer at the Project. The Project will not require surface water for construction or operation. Normal rain events will keep manual cleanings of the solar modules to a minimum, but occasional water for cleanings may be required. Water tank trucks may be used to manage dust during construction, if necessary, per the sediment and erosion control plans.

2. Affected Streams and Aquifers

As mentioned above, the Project has been reviewed by the MDE and a determination is pending regarding wetlands and waterways avoidance as part of the Project. The wetlands on the property will not be disturbed. The Project will be located thirty-five feet (35') from field located wetlands. The Project Parcels are located mostly within the George's Creek and Savage River watershed which both drain to the North Branch Potomac River. No impacts to streams or aquifers are anticipated as a result of the Project design.

3. Impact on Other Water Users

No impact to other water users is anticipated as a result of the Project.

a. Impacts to Other Water Users During Construction
If water is needed during construction to control dust, a tanker truck will be provided.

b. Impacts to Other Water Users During Operation
Stormwater facility approvals, sediment and erosion control permits, and grading permits will all be obtained as controls on the water quality leaving the Site. As an unmanned facility, there will be no sustained water consumption. Water consumption required during operations will be intermittent as identified above.

4. Mitigation and Minimization Techniques Evaluated

No impacts to water quality or appropriation are anticipated. During field assessments and constraints mapping environmental impacts were avoided. Appropriate buffers and setbacks have been established within the design. Project phasing and sequencing to minimize disturbances within the LOD at any one time will be established as part of the sediment and erosion control plans.

5. Requirements Under COMAR 26.17.06.07 and 26.17.07

It is assumed that there is no reason for permits to be issued under COMAR 26.17.06.07 and 26.17.07 since no water use will be needed for the Project. Groundwater was encountered between five feet (5') and approximately fifteen (14.7') in only three (3) of the one hundred fifty (150) bores. Based on this information it is expected that during electrical installation, groundwater will not be encountered. Where groundwater is encountered during construction, it is expected to be de-minimis, and since the average groundwater depth is more than five feet (5') below surface. Therefore, the Applicant will submit a Groundwater Appropriation Permit Exemption application to MDE.

D. DESCRIPTION OF EFFECT ON STATE OR PRIVATE WETLANDS

1. Public Health and Welfare

The Project's operation will not produce, emit, or discharge any significant noise, air pollutants, or water pollutants, which would negatively impact public health or welfare. Additionally, the Project will not generate, transport, store, treat, and/or dispose of hazardous waste.

2. Marine Fisheries

The Applicant has consulted with USFWS regarding an environmental project review. As noted in ***Appendix 9***, USFWS has determined there are no critical habitats, refuge lands, or fish hatcheries within the Project Area.

3. Shell Fisheries

The Applicant has consulted with USFWS regarding an environmental project review. As noted in ***Appendix 9***, USFWS has determined there are no critical habitats, refuge lands, or fish hatcheries within the Project Area.

4. **Wildlife**

As noted above, the Applicant contacted USFWS for an official site-specific review and consultation for formal determination of no impact to threatened and endangered species prior to Project construction. The IPaC tool indicates *the Project "May Affect the northern long-eared bat*" (see ***Appendix 9***). DNR review is currently underway.

5. Protection of Life and Property from Flood, Hurricane, or other Natural Disaster

Solar projects are unique in that, during a natural disaster, only destruction to the panel array itself would occur. Total destruction of the panel array and the transformers would not release harmful gases or significant liquids and would have no adverse effects on surrounding property or life. All components of the Project will be designed per the local and state building codes.

6. Mitigation and Minimization or Replacement Land Acquisition

Mitigation and minimization or replacement land acquisition is not applicable to the Project.

7. License/Permit for Use of State Tidal or Nontidal Wetlands

The information and forms required by the MDE regulations relating to a license for use of State tidal wetlands under COMAR 26.24 are not required for this Project for the reasons stated above. The information and forms required by the MDE regulations relating to a permit for use of State nontidal wetlands under COMAR 26.23 are not required for this Project for the reasons stated above.

E. WASTE HANDLING

1. Waste Handling During Construction

During construction, the contractor will collect any waste material and remove it to an approved waste handling facility. Large amounts of waste during construction are not anticipated. Waste material will mainly consist of packaging materials from the framing and electrical equipment that will be delivered to the Project.

2. Waste Handling During Operation

During operation, there will be little, or no waste material generated at the Project. Any waste that is generated from maintenance and/or repair operations will be removed and disposed of at an approved waste handling facility. There will be no sanitary sewer waste generated at the Site.

3. Waste Handling During Decommissioning

Waste associated with decommissioning and deconstruction of the Project will be handled appropriately pursuant to a Decommissioning Plan approved by the Commission pursuant to the Power Plant Research Program's standard decommissioning licensing condition. Once the life of the Project is complete, the land will be restored to a condition substantially similar to the condition prior to construction.