

The Maryland-National Capital Park and Planning Commission
Prince George's County Planning Department
Countywide Planning Division
301-952-3650



Note: Staff reports can be accessed at <http://mncppc.iqm2.com/Citizens/Default.aspx>.

Mandatory Referral

MR-1720F

Application	General Data	
Project Name: Monarch Solar, LLC Location: 6601 Old Crain Highway Upper Marlboro, Maryland Applicant/Address: 1997 Annapolis Exchange Parkway Suite 300 Annapolis MD 21401 Attn: Marni Carroll Property Owner: Mr. Henry Claggett III 6601 Old Crain Highway Upper Marlboro, Maryland, 20773	Planning Board Hearing Date:	04/26/18
	Date Accepted:	03/5/18
	Review Action	60-Day
	Acreage:	393.91 acres
	Zone:	R-A
	Planning Area:	82A
	Plan 2035 Designation:	Established Communities Rural Agricultural Areas
	Council District:	District 9
	Municipality:	N/A

Purpose of Application	Acceptance Notice Date:
Monarch Solar, LLC is proposing to construct a 5.9-megawatt (MW) Community Solar Energy Generating System ("CSEGS") on a portion (42 acres) of a 393-acre private property Zoned R-A located approximately one-mile southwest of the Town of Upper Marlboro off Old Crain Highway and Farm Road.	March 5, 2018

Staff Recommendation	Staff Reviewer:
Transmit Staff Report to: Monarch Solar, LLC 1997 Annapolis Exchange Parkway Suite 300 Annapolis MD 21401 Attn: Marni Carroll	Christine A. Osei, Project Manager
	Phone Number: 301-952-3313
	Email: Christine.Osei@ppd.mncppc.org

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MR-1720 Staff Report – Community Solar Proposed Monarch Solar, LLC

PROJECT BACKGROUND

The subject project is being reviewed pursuant to the Land Use Article §§20-301 through 305 of the Maryland Annotated Code and Section 27-294 of the Prince George's County Zoning Ordinance that require the Planning Board to review public construction projects for all federal, state, county and municipal governments, and publicly and privately-owned utilities through the Mandatory Referral (MR) review process. A portion of the proposed Monarch Solar project received approval from the Maryland Public Service Commission (PSC) to participate in the Community Solar Pilot Program. The PSC's Aggregated Net Metering program specifies that only municipal, non-profit, or agricultural entities can benefit from the sale of solar electricity from off-site private properties. The Prince George's County Planning Board will forward its recommendations to the PSC for final review and approval of the proposed solar project.

PROJECT SUMMARY

Monarch Solar LLC proposes to construct a 5.9-megawatt solar project on a 393.91-acre tract of land located at 6601 Old Crain Highway, approximately one mile southwest of the Town of Upper Marlboro. The solar panel array will be placed on 42 acres within the larger parcel in areas of the property that are being used as pasture and for seasonal production and storage of hay. The project is designed to ensure continued use by the owner of a barn located within the project area that is currently used for hay storage.

The 393-acre parcel farm contains the Weston and Cemetery Historic Site (82A-000-07). Weston is a two-and-one-half story, side-gabled brick plantation house that was built in the early nineteenth century and attached to an earlier wing. The principal façade is laid in Flemish bond, and the interior exhibits detail in both the Federal and Greek Revival styles. The main block was built for Thomas Clagett VI, and soon afterward enlarged, probably incorporating part of an earlier Clagett dwelling. Weston has been the Clagett family seat for generations. It is an excellent example of a multiperiod plantation house. The grounds include several farm outbuildings, as well as the Clagett family cemetery.

The proposed solar arrays are adjacent to the Environmental Setting of the Weston Historic Site. The site is also within the boundaries of the Weston-Sasscer's Green Historic District (82A-047), which may be eligible for listing in the National Register of Historic Places. One section of the solar arrays is proposed to be sited to the northeast of Weston adjacent to Old Crain Highway. The other two set of arrays are proposed to be sited in the agricultural fields to the northwest of the house. The panels will have a maximum height of nine feet and will be arranged in rows with at least ten feet of space between the rows. The arrays will be surrounded by a chain link fence with locked gates.

The solar project is separated into three major arrays (A, B, and C) and each array will have a single power center containing a series of inverters and transformers, mounted on a concrete pad. Interconnection will be made by running a short overhead line between the site facilities and the existing PEPCO lines to the west of the arrays. All three areas are outside of the Environmental Setting but could have a visual impact on the historic site.

The applicant has proposed to screen Old Crain Highway and the Weston Historic Site from the solar arrays by installing, at a minimum, a 40-foot wide landscaping screen consisting of approximately 160 to 180 plants per every 100 linear feet. A mixture of native shade, evergreen, ornamentals and shrubs approved in the Prince George's County Landscape Manual will be planted in designated areas. Screening materials will be designed to provide year-round coverage that matches the existing vegetation in the project area.

The solar project contains a total of six sub arrays to be located on a total area of approximately 42 acres: A1, A2, B1, B2, B3 and C. See Table 1 below. Five of the six arrays (A1, A2, B1, B2 and C) are beyond Fire, Emergency Medical Services (Fire/EMS) total response time of 5 minutes for non-residential uses. The test is from the nearest Fire/EMS Station N0 820 located at 14815 Pratt Street in Upper Marlboro, MD. Array B3 located north of Old Crain Highway met the emergency response test.

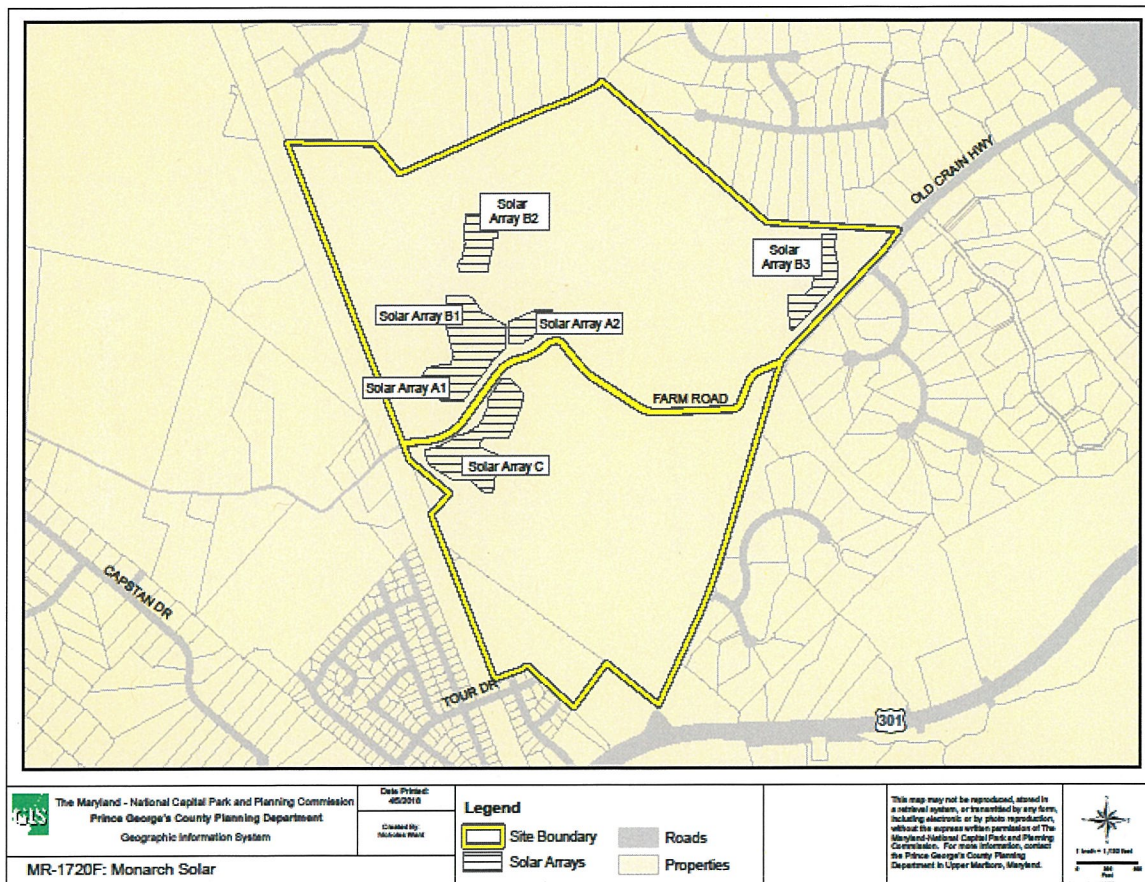
Proposed Monarch Solar, LLC: Arrays by Acreage

Table 1

Array Number	Megawatt	Acreage	Rows of Panels	Inverter/Transformer
A1, A2	1.34	9.8	22	0
B1, B2	1.78	12.3	36	1
B3	0.78	7.56	31	1
C	2.00	12.72	42	1
Total of six Arrays	5.9	42.38	131	3

Monarch Solar, LLC 2018

Map 2- Location of Proposed Solar Arrays



Applicability of Energy Solar Systems (SES) Guidelines

Under the 2018 Approved *Prince George's County Solar Energy Systems (SES) Guidelines for Mandatory Cases*, the development of the subject site will result in some loss of prime agricultural land because some of the land is used as pasture and for seasonal production and storage of hay. Applicant proposes a dual use concept, using herbaceous cover with pollinator value per SES guidance.

The project is designed to ensure continued use by the owner of a barn located within the project area that is currently used for hay storage. The site is not in the Chesapeake Bay Critical Area or the Mount Vernon Viewshed Area.

STAFF RECOMMENDATIONS

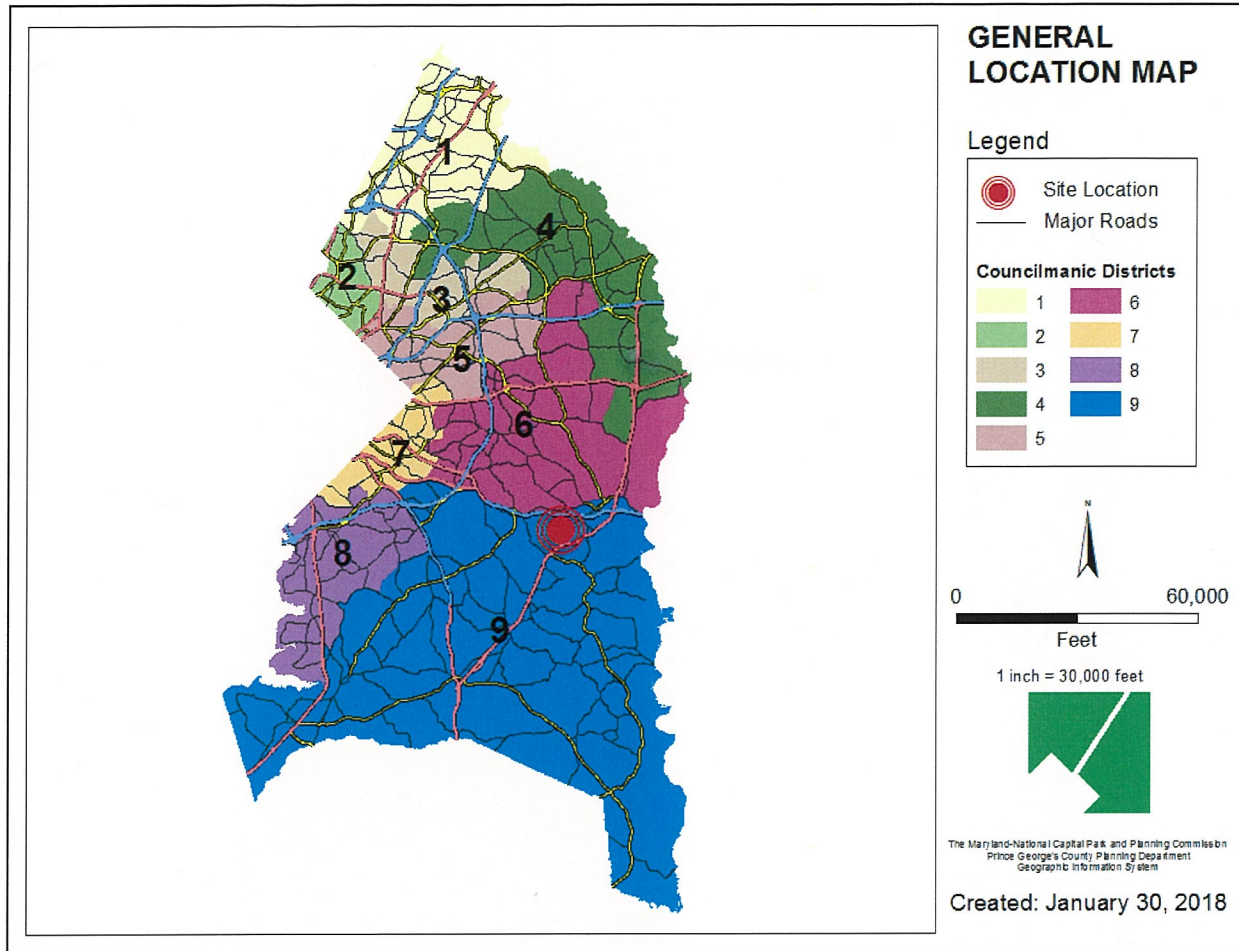
The project was reviewed by Planning Department staff, resulting in the recommendations outlined below. The Weston Historic Site has been occupied by members of the same family since the early 1700s and the property has not been surveyed for archeological resources. Prior to the issuance of a grading permit, the applicant and the applicant's heirs, successors and/or assignees should:

1. Conduct Phase I (Identification) archeological investigations, according to the Planning Board's *Guidelines for Archeological Review* (May 2005) to determine if any cultural resources are present, in the areas that will be impacted by the solar arrays. The staff archeologist should approve the work prior to commencing Phase I work. If significant archeological resources exist in the project area, the applicant should provide a plan for:
 - i. Evaluating the resource at the Phase II level, or
 - ii. Avoiding and preserving the resource in place.
2. If Phase II and/or Phase III archeological evaluation or mitigation is necessary the applicant should provide a final report detailing the Phase II and/or Phase III investigations and ensure that all artifacts are curated at the Maryland Archaeological Conservation Laboratory in St. Leonard, Maryland.

Fire/EMS Mitigation Plan:

3. The applicant should design, install and maintain the proposed project to meet all applicable minimum standards set forth in the National Fire Protection Association (NFPA) 70: National Electrical Code and all applicable minimum standards appropriate for ground-mounted solar facilities set forth in NFPA 1: Fire Code.
4. Prior to the commencement of construction, the applicant should contact the Prince George's County Fire/EMS Department to request a pre-incident Emergency Plan for their facility conducted by the closest station to the site. The pre-incident Emergency Plan will involve establishing points of contact and timely response options, facilitating emergency vehicle access throughout the site, creating a consistent marking protocol for the identification of system components that require special attention during an emergency, and developing appropriate Standard Operating Procedures or Standard Operating Guidelines for addressing on-site emergencies.

Map 3 - General Project Location Map



PROJECT DESCRIPTION

Construction activities will include some ground disturbance in the form of grading, trenching for underground electrical cables, construction of concrete pads for the inverters, and assembling, erecting and wiring of the solar panels. To provide stormwater and erosion control, all disturbed areas will be planted and maintained with low-cover warm-season grasses and flowering vegetation. The solar panels will be set on a fixed-tilt tracking system supported by driven steel piles, power inverters, and other electrical and interconnection equipment.

The proposed development will utilize up to 42 acres of a 393-acres parcel and will provide a clean source of electrical power that will help offset fossil fuel generation and associated pollution, while also benefiting local agricultural uses through increasing pollinator habitat. The project will employ up to 50 people during construction.

The project will consist of solar photovoltaic panels, a fixed tilt racking system supported by driven steel piles, power inverters and other electrical and interconnection equipment. The panels will have a maximum height of nine feet and will be arranged in rows with at least ten feet of space between rows. The project will total approximately 5.9 megawatts (MW) and will connect to an existing PEPCO distribution grid infrastructure. The project area will be fenced and locked with no staff on site except periodically required for maintenance.

This project will include the planting of four acres or more of habitat for monarch butterflies and other pollinators.

PROJECT SCHEDULE/HOURS OF OPERATION:

Construction of Monarch Solar is anticipated to begin in mid-August 2018 and completed within 12-16 weeks. At the height of construction phase, Monarch Solar, LLC will employ up to 50 personnel working remotely or on the site. The project will utilize local labor and resources where possible. Construction activities will include some grading, trenching of underground electrical cables, construction of concrete pads for the inverters, and assembling, erecting and wiring of the solar panels. Construction will also require driveway access improvements and approximately 1.15 miles of new gravel road through the center of Array B for maintenance of the electrical equipment.

REVIEW AND PERMITTING AGENCIES

Agency Name	Review Capacity
Prince George's County Department of Permitting, Inspections and Enforcement	Building and grading permits and stormwater management permit
Maryland Public Service Commission (PSC)	Certificate of Public Convenience and Necessity (CPCN), Community Solar Energy Generating Systems Pilot Program
Prince George's County, Soil Conservation District	Erosion and sediment control permit
PEPCO	Interconnection Agreement
Maryland Department of Environment (MDE)	Stormwater and Pollution Prevention Plan
Maryland Department of Natural Resources, Wildlife and Heritage Service	Consultation/demonstration of no impact to listed plant and animal species

ANALYSIS OF PROJECT IMPACT AREAS

The Maryland-National Capital Park and Planning Commission, Prince George's County Planning Department staff and the Prince George's County Soil Conservation District staff have reviewed the proposed Monarch Solar, LLC project and provided the following comments:

1. ENVIRONMENTAL ASSESSMENT

According to PGAtlas and the reports submitted, the study areas comprise 85 acres and contain steep slopes, woodland and 17 specimen trees. Streams and floodplain are identified on the property, but not within the study area. The on-site stream networks include sources contributing to the Western Branch, north of Farm Road, and the Charles Branch, south of Farm Road. The Western Branch is a Maryland Stronghold Watershed, and both The Western and Charles Branches are located in the Patuxent River basin. The property is in Environmental Strategy Area 3, of the Regulated Environmental Protection Areas Map as designated by *Plan Prince George's 2035 Approved General Plan*. There are no rare, threatened or endangered species mapped on or in the vicinity of the site based on information provided by the Maryland Department of Natural Resources, Natural Heritage Program, dated February 14, 2017. The property does contain potential Forest Interior Dwelling Species habitat. The approved Countywide Green Infrastructure Plan shows that much of the property contains Regulated and Evaluation areas, associated with the multiple stream sources.

2. SOILS EVALUATION

The subject application was referred to the Prince George's County Soil Conservation District (SCD) for a soils analysis of the areas to be disturbed for the solar arrays and roads. Soils analysis concluded that the site contains prime agricultural soils as follows: 15.4 acres is in Class I, II and II soils (non-irrigated) and 16.8 acres are in prime farmland and farmland of prime importance. An erosion control plan will be required.

3. TRANSPORTATION ASSESSMENT & DRIVEWAY ACCESS

Access and circulation is acceptable. Old Crain Highway is a master plan collector facility with a proposed right of way of 80 feet and 4 lanes. Farm road is not a master plan facility. There are no other transportation-related comments or concerns regarding the development of this site.

4. HISTORIC PRESERVATION/ARCHEOLOGY

The 393-acre parcel contains the Weston and Cemetery Historic Site (82A-000-07). Weston is a two-and-one-half story, side-gabled brick plantation house that was built in the early nineteenth century and attached to an earlier wing. The principal façade is laid in Flemish bond, and the interior exhibits detail in both the Federal and Greek Revival styles. The main block was built for Thomas Clagett VI, and soon afterward enlarged, probably incorporating part of an earlier Clagett dwelling. Weston has been the Clagett family seat for generations. It is an excellent example of a multiperiod plantation house. The grounds include several farm outbuildings, as well as the Clagett family cemetery.

5. ECONOMIC ASSESSMENT

The project will employ up to 50 people during construction. The new facility may improve the delivery of electricity and give customers an additional choice in purchasing electricity from alternative sources such as Community Solar Energy Generating System ("CSEGS").

6. CONSISTENCY WITH DEVELOPMENT/REGULATORY STANDARDS

The proposed solar array fields are properly screened from the scenic roadways in accordance with the requirements of Section 4.6 with a 40-foot wide landscaped bufferyard. The associated landscape schedules have been provided. The proposed solar array fields are also properly screened from the existing residential dwellings to the north by using the existing woodland on the larger property.

In addition, the proposed solar array fields are also designed to be pollinator friendly and will include planting four acres or more of habitat for monarchs and other pollinators. The proposed planting materials including the herbaceous mix of cover vegetation for habitat and pollinators are acceptable.

7. CONSISTENCY WITH APPROVED PLANS

This application is consistent with the 2014 *Plan Prince George's 2035 Approved General Plan* and the 2013 *Approved Subregion 6 Master Plan and Sectional Map Amendment*. The subject property is located outside the Plan 2035 designated growth boundary, in the Rural and Agricultural Areas.

8. EXISTING PUBLIC FACILITIES

The Deputy Fire Chief Dennis C. Wood, Emergency Services Command of the Prince George's County Fire/EMS Department, stated only a portion the subject project was determined to have a travel time under four minutes, therefore an associated response time under five minutes, from the closest Fire/EMS Station 820; which is located at 14815 Pratt Street in Upper Marlboro. Applying the national standard to the subject property only the Solar Array B3 (estimated at 6003 Old Crain Hwy) is **within a 4-minute travel time** and passes the adequacy test. Remaining Solar Arrays A1, A2, B1, B2, and C (estimated location 124002 Farm Road) are **outside a 4-minute travel time** from the closest Fire/EMS Station 845 located at 7710 Croom Road in Upper Marlboro. These arrays do not pass the adequacy test but may offer to mitigate.

9. COMMUNITY OUTREACH

Planning Department:

Notification letters were mailed to adjoining property owners and area civic associations. As of this date, no issues have been raised by either group – civic association or adjoining property owners.

Applicant

Notices were sent to 34 registered associations, 39 adjacent landowners and the Town of Upper Marlboro on December 1, 2017. A project website was launched on December 5th and contains information on the project and on solar in general with information on how to make contact.