WISCONSIN DEPARTMENT OF NATURAL RESOURCES

ENGINEERING PLAN

VISTA SANDS SOLAR LLC

PORTAGE COUNTY, WISCONSIN

AUGUST 2023

Vista Sands Solar LLC

c/o Doral Renewables, LLC

2 Logan Square, Suite 1830

Philadelphia, PA 19103

TABLE OF CONTENTS

1. INTRODUCTION

Vista Sands Solar LLC (Vista Sands Solar), an affiliate of Doral Renewables LLC (Doral), is preparing an application for a Certificate of Public Convenience and Necessity (CPCN) for submission to the Public Service Commission of Wisconsin (PSCW) to construct and place in service the Vista Sands Solar Project (Project). The Project consists of a nominal 1.2-gigawatt (GW) solar photovoltaic (PV) generation facility with a 250-megawatt alternating current (MWac) battery energy storage system (BESS). This filing will be made in PSCW Docket No. 9820-CE-100.

In accordance with Wis. Stat. § 196.491(3)(a)3.a*,* Vista Sands Solar is submitting this Engineering Plan (Plan) to the Wisconsin Department of Natural Resources (DNR) at least 60 days prior to submission of the corresponding CPCN application to the PSCW. Vista Sands Solar requests that within 30 days after receipt of this Plan, the DNR provide Vista Sands Solar with a listing of all DNR permits or approvals that are required based on the information contained within the Plan.

The figures and information contained in this Plan are estimates based on desktop and field analyses performed to date. They are subject to change based on final siting of the solar arrays and associated facilities.

2. PROJECT OVERVIEW

The proposed Project will be a ground-mounted 1.2 GW PV solar generation facility located in Portage County, Wisconsin. Note that the nameplate or gross inverter capacity of the PV facility will be approximately 1,550-megawatt direct current (MWdc) or 1,200-MWac. The Project will have a net output of 1,182-MWac at the Point of Interconnection (POI). Nameplate capacity of the system in the field will be approximately 1,300MWac to account for line losses en route to the POI.

The Project is located between State Trunk Highway 54 to the north; County Trunk Highway W to the south; Hoover Avenue to the east; and 90th Street to the west, on parcels in Sections 28, 29, 30, 31, 32 and 33 of Township 23 North, Range 8 East; Sections 25, 35 and 36 of Township 22 North, Range 7 East; Sections 4, 5, 6, 8, 9, 15, 16, 18, 20, 21, 28 and 33 of Township 22 North, Range 8 East; and Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 of Township 22 North, Range 7 East. The Project consists of an east-west tracking solar panel system and associated facilities on approximately 9,130 acres.

There will be a total of five new Doral-owned Project substations located separately throughout the Project footprint. Power generated by the Project will be collected via 34.5 kilovolt (kV) underground collector lines and three separately located collector substations with 138 kV step-up transformers. The 138 kV overhead lines will feed into two separately located main substations with 345 kV step-up transformers. An approximately four-to-five-mile 345 kV transmission line will convey power between the two main substations. Any necessary CPCN required for the collector and generation-tie line will be pursued concurrently with the generation CPCN. The Project will be connected to the transmission grid via a new switching station adjacent to the existing American Transmission Company (ATC) Rocky Run to Werner West 345 kV line. The switching station will be constructed, owned, and operated by ATC.

An Operations and Maintenance (O&M) facility and associated parking area will also be constructed within the Project footprint.

Additional Project facilities include access roads to facilitate the installation and maintenance of the solar arrays and panels and laydowns areas for staging of equipment and materials.

3. VISTA SANDS SOLAR PROJECT AREA MAPS

This submission includes a series of maps to provide an overview of the Project vicinity, as well as details within the Project footprint as follows:

Figure 1. Vista Sands Solar Project Overview: Project Location and Topography
Figure 2. Vista Sands Solar Project Overview: Aerial Photography
Figure 3. Vista Sands Solar Project Overview: Wetlands and Waterways

4. PANELS

The Project will include the installation of an east-west tracking solar panel system. The Project's proposed solar panels are located south and west of the existing ATC Rocky Run to Werner West 345 kV transmission line. Project land under control is sufficient to produce the desired Project power output, as well as to accommodate the PSCW's 25% alternate area requirement.

In recognition of ongoing technological improvements, the make and model of the solar panels are being finalized but the current anticipated rated power of the panels will be in the range of 500-650 watts per panel. The panels themselves will measure approximately seven to eight feet long by three to four feet wide. The solar panels are anticipated to be mounted on a galvanized steel and/or aluminum rack system. The rack system will be a +/- 60-degree range of motion (single-axis) tracker positioned in the north/south direction that will track the sun from east to west, or a system with similar characteristics.

5. ACCESS ROADS

The solar panel arrays will require an access road system to allow for construction equipment and ongoing operation and maintenance. Access roads will originate at a public road and extend to panel sites. Permanent access roads will be 14-20 feet wide.

Access points will be selected to provide the most convenient internal circulation patterns while causing the least disruption to existing traffic. Safety at access points will be the most important factor in determining the spacing and location of access points. Access points will be permitted with the appropriate jurisdictional highway agency.

6. COLLECTION SYSTEM

A 1,500-volt DC collection system will connect the individual solar panels to a centrally located inverter for each inverter block. The inverter will convert the DC to an AC voltage, which will be stepped up by a transformer to 34.5 kV for transport to the Project substations.

The 34.5 kV collection system will be primarily an underground collection system. The underground cables will utilize a jacketed neutral design. The cables are approximately 1.5 to 2.5 inches in diameter, including insulation and concentric neutral. The final installation depth is approximately four feet underground. The Project is designed with up to sixteen collection circuits in parallel, which will terminate within the Project substations where the power will be transformed via 34.5 kV/138 kV, 34.5 kV/345 kV, and 138 kV/345 kV step-up transformers. Additionally, 138 kV and 345 kV collector lines will transport the power to the POI.

The temporary impact area due to collection line installation varies depending on the installation method. Open trenching or vibratory plows may be utilized across most of the site. Directional sub-surface boring methods may be used in specific areas related to roadway, wetland, and waterway crossings.

7. BATTERY ENERGY STORAGE SYSTEM (BESS)

As the U.S. energy landscape evolves to more renewable energy sources such as wind and solar generation and less conventional fossil fuel generation, energy storage will play an essential role to stabilize the grid. The electric grid works by matching supply and demand at every moment for the grid to function reliably. Energy storage systems store excess energy in times of low demand to be used later when it is needed, especially during peak demand hours and in times of emergency or grid outages. Storage helps to place energy on the grid when it is needed, instead of only when it is being produced—such as when the wind is blowing, or sun is shining.

Energy storage helps maximize benefits to the grid and to rate payers. Co-locating solar and BESS at the same site helps to smooth the power supplied by the intermittent solar output and enables the two systems to share some hardware components, which can lower costs rather than having them at different sites. Co-location can also reduce costs related to site preparation, land acquisition, labor for installation, permitting, interconnection, and developer overhead.

The 1.2-GW Vista Sands Solar Project will be paired with a 250-MWac BESS. The BESS will be located adjacent to the main Project substation and near the utility-owned switching station. The BESS will be configured of battery modules housed in racks within a series of outdoor rated enclosures. The BESS will include inverters and medium voltage transformers to transfer the energy to and from the batteries.

8. INTERCONNECTION

The Project entered the Midcontinent Independent System Operator (MISO) Interconnection Queue in August 2022 and was assigned queue positions J2099, J2107, and J2185. The Project is currently in the Definitive Planning Phase (DPP) 2 study as part of the DPP 2021 East ATC Cycle 1.

The 34.5 kV and 138 kV AC collector circuits noted in the section above will step up to the interconnection voltage via a new 34.5 kV/345 kV transformer and a 138 kV/345 kV transformer at the two main Project substations. The Project's main substations will connect to a switching station that will be owned and operated by ATC.

All systems required to protect the Project and transmission system equipment will be installed according to the ATC and MISO Interconnection Standards. The details of the interconnection and exact point of demarcation between the Project and ATC facilities will be determined during the MISO interconnection process.

9. O&M BUILDING AND STAGING (LAY DOWN) AREAS

A Project O&M building will be comprised of a single-story metal shop-type structure and will primarily serve as an office for on-site personnel and include water/sanitary, permanent parking, a workshop, indoor garage, and storage area for spare parts.

Temporary staging or lay down areas are planned for the Project. These areas will be internal to the site while the Project is under development. The areas will be sized to adequately stage construction equipment and deliveries and will be utilized during the construction process to accommodate equipment,

materials, and construction trailers, as well as parking for personnel and construction vehicles. Upon completion of construction, the area will be developed as part of the site plan.

10. POTENTIAL ENVIRONMENTAL IMPACTS

Attribute	Proposed Solar Facility
Will any recreational areas/trails be affected?	Yes (local snowmobile trail)
Will construction activities disturb more than one acre of land?	Yes
Will there be construction in wetlands?	Yes
Will there be permanent fill placed in wetlands?	No
Will temporary bridges over waterways be required for construction?	To be determined
Will any fill, poles, or facilities be placed in waterways below the ordinary high-water mark?	No
Will more than 10,000 square feet of land be graded or removed within 300 feet of a waterway?	To be determined
Will there be any discharge of water from excavations during construction?	Yes
Are any threatened, endangered, or species of special concern or habitats potentially within the Project study area?	Yes

11. LIST OF NEEDED PERMITS

Anticipated Permit	Proposed Solar Facility
PSCW CPCN	Yes
Wis. Stat. Chapter 30	To be determined
U.S. Army Corps of Engineers 404	Yes
U.S. Army Corps of Engineers 10	No
Wetland Water Quality Certification (Wis. Stat. § 281.36, Wis. Admin. Code Chapters NR 103 & NR 299)	Yes
WPDES for pit/trench de-watering (Wis. Stat. Chapter 283)	Yes
Construction Stormwater (Wis. Stat. Chapter 283, Wis. Admin. Code Chapters NR 216 & NR 151)	Yes
Threatened & Endangered Incidental Take (Wis. Stat. § 29.604)	To be determined

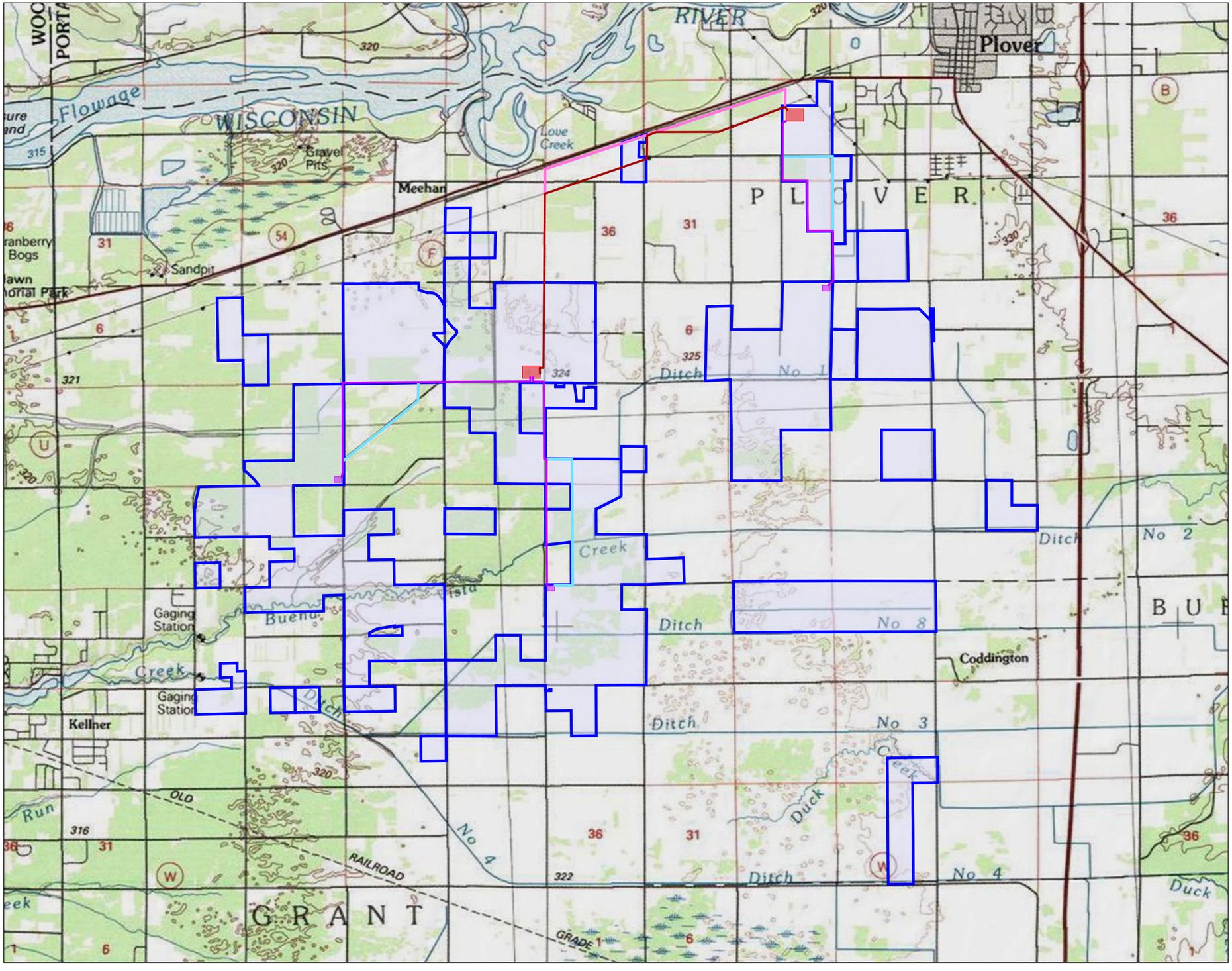
De-watering activities will be covered under the General WPDES Construction Stormwater Permit acquired through Wis. Admin. Code chs. NR 216 and NR 151.

12. PERMITTING AND CONSTRUCTION SCHEDULE

Anticipated CPCN/DNR Utility Permit Application submittal date: Q4 2024

Anticipated start of construction: Q2 2025

Anticipated in-service date: Q4 2026



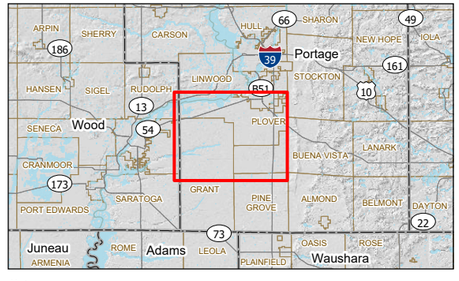


Figure No.
1

Title
Project Location and Topography

Client/Project
Vista Sands Solar LLC
Vista Sands Solar Project
Engineering Plan

193708635

Project Location
Portage Co., WI

Prepared by DJG on 2023-07-11
TR by JD on 2023-07-14
IR by CP on 2023-07-14

N

0 0.5 1 Miles
(At original document size of 11x17)
1:63,360

Legend
- Project Boundary

Proposed Substation Location
- 345 kV Substation
- 138 kV Collector Substation

Approximate Project Transmission Line
- 345 kV, Primary
- 345 kV, Alternate
- 138 kV, Primary
- 138 kV, Alternate

Notes
1. Coordinate System: NAD 1983 HARN Wisconsin TM
2. Data Sources: Stantec, Vista Sands Solar LLC, Esri, SCO, WisDOT, USGS
3. Background: USGS Topographic Map

Stantec

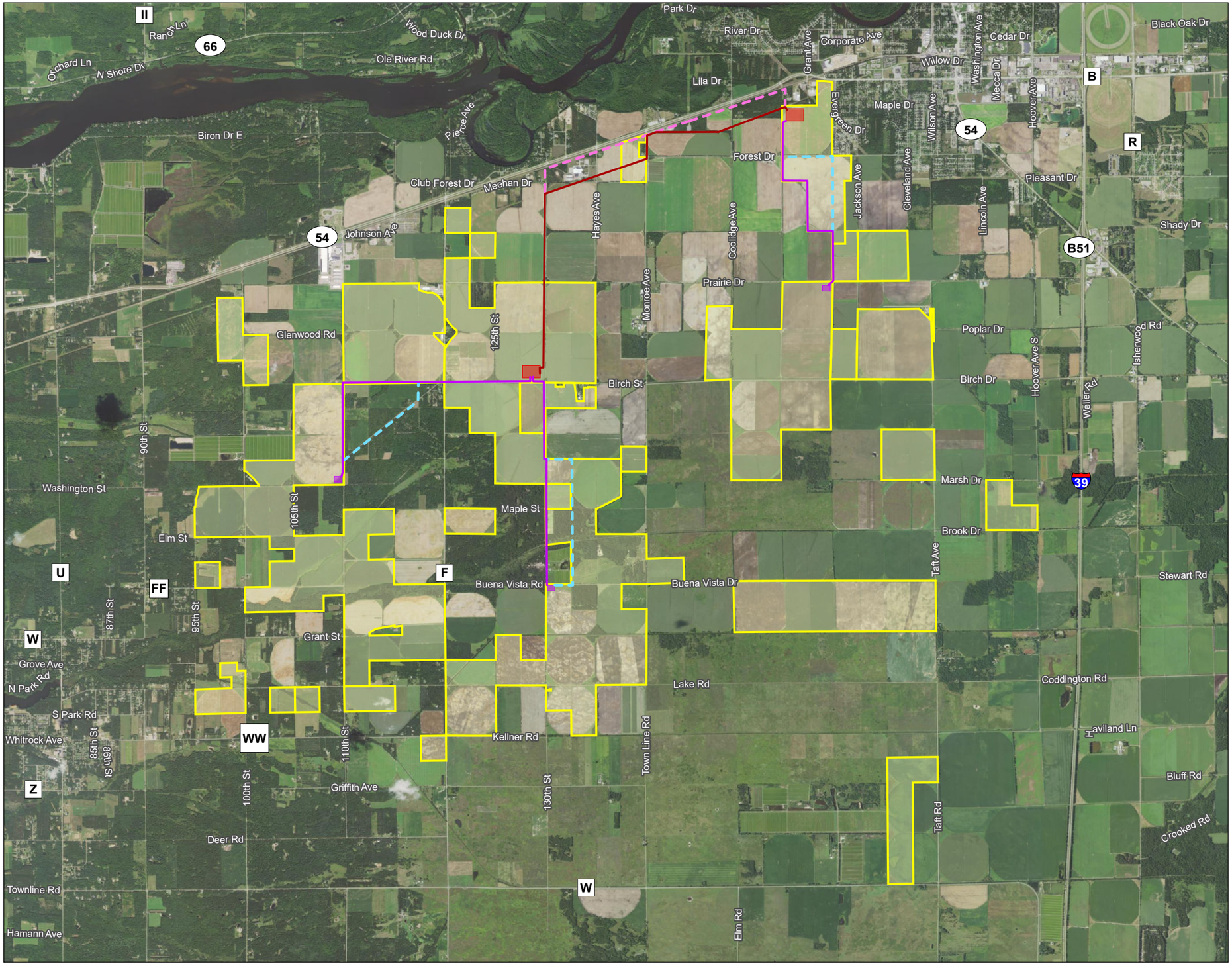


Figure No.
2

Title
Aerial Photography

Client/Project 193708635
Vista Sands Solar LLC
Vista Sands Solar Project
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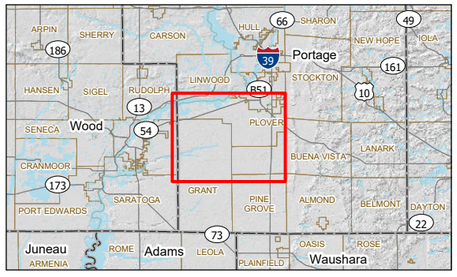

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3. Background: NAIP 2022

Stantec

Figure No.

3

Title

Wetlands and Waterways

Client/Project

Vista Sands Solar LLC
Vista Sands Solar Project
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Project Location
Portage Co., WI

Prepared by DJG on 2023-07-11
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N

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Legend

- Project Boundary

Proposed Substation Location

- 345 kV Substation
- 138 kV Collector Substation

Approximate Transmission Lines

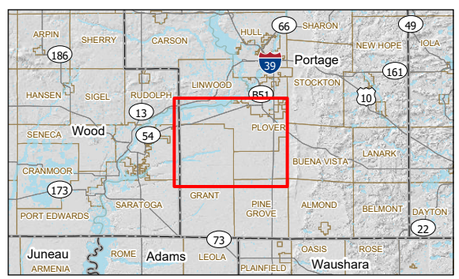
- 345 kV, Primary
- 345 kV, Alternate
- 138 kV, Primary
- 138 kV, Alternate

WWI Wetland Class Areas

- Wetland

DNR 24k Hydrography

- Perennial Stream
- Intermittent Stream
- Waterbody



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Stantec