Golden Solar Facility
Site Assessment Report

Kentucky State Board on Electric Generation and Transmission Application

Case No. 2020-00243

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Attachments

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Acronyms

Applicant	Golden Solar, LLC
CWA	Clean Water Act
dBA	A-weighted Decibel
Golden Solar	Golden Solar, LLC
IP	Individual Permit
KDOW	Kentucky Energy & Environment Cabinet, Department for Environmental Protection, Division of Water
KRS	Kentucky Revised Statutes
kV	Kilovolt
NWP	Nationwide Permit
O&M	Operations and Maintenance
PIM	Public information meeting
Project	Golden Solar Facility
USACE	United States Army Corps of Engineers
WOUS	Waters of the United States
WQC	Water Quality Certification

1 Description of Proposed Site

1.1 Requirement

Kentucky Revised Statutes (KRS) 278.708(3)(a): A description of the proposed facility that shall include a proposed site development plan that describes:

1. Surrounding land uses for residential, commercial, agricultural, and recreational purposes;
2. The legal boundaries of the proposed site;
3. Proposed access control to the site;
4. The location of facility buildings, transmission lines, and other structures;
5. Location and use of access ways, internal roads, and railways;
6. Existing or proposed utilities to service the facility;
7. Compliance with applicable setback requirements as provided under KRS 278.704(2), (3), (4), or (5); and
8. Evaluation of the noise levels expected to be produced by the facility

1.2 Compliance

1.2.1 Solar Facility

Golden Solar, LLC (Golden Solar), a wholly owned subsidiary of National Grid Renewables Development, LLC, is proposing to construct the Golden Solar Facility (Project), which will be an up to 100-megawatt (MW_{ac}) alternating current photovoltaic electricity generation facility. Project facilities will include solar modules, inverters, tracking racking, fencing, access roads, a substation, a switchyard, an operations and maintenance (O&M) building and facilities, below- and/or above-ground electrical collection lines, up to eight weather stations (up to 15 feet tall), and temporary construction laydown yards. The Project will be located on approximately 1,870 combined acres in Caldwell County between the towns of Fredonia and Princeton. No street address has been established at this time for the Project; the coordinates for the location are 37.16879°N and 87.98105°W. For interconnection, Golden Solar, LLC will construct a substation to connect at the North Princeton Switching Station owned by Louisville Gas and Electric Company and Kentucky Utilities Company (LG&E/KU). The Project substation will be located within the Project boundary, and an overhead generator tie line of approximately 300 feet in length will connect it to the point of interconnection.

The solar panels will be mounted on a racking system, which provides a foundation for the panels and supports them aboveground on pile-driven piers. This racking system has a minor footprint, and concrete foundations are unlikely to be required, resulting in low impact to the area beneath the panels. Final geotechnical studies will identify any possible deviations from standard pile driving conditions. Rainfall will run off the panels onto the ground surrounding the panels, which will be vegetated with herbaceous plants and provide infiltration into the groundwater.

The electricity generation facility will be surrounded by a 6-foot-tall fence topped with barbed and/or smooth wire for security that meets National Electrical Code Article 110. Outside of the fence, trees and shrubs will be planted as screens in areas where the panels are adjacent to residences or other sensitive areas that could experience visual impacts from the panels and associated infrastructure and existing vegetation is an inadequate screen. Vegetative buffers will consist of deciduous and evergreen trees and shrubs, as described in Section 2.2.1.

A wetland delineation report was completed for the Project area (Attachment G). Additionally, a Phase I Environmental Site Assessment was conducted on the Project area at two different times, so there are two Phase I Environmental Site Assessment documents (Attachment H). A Karst Survey (Attachment I) was also conducted on the majority of the Project area. These reports have been incorporated into the site plan design.

1.2.2 Site Plan Details

The following list provides site plan details pursuant to the requirements in KRS 278.708(3)(a):

1. Current land use was assessed within the proposed Project boundary. Approximately 75% percent of the land within the Project boundary is currently used for agriculture. A detailed breakdown of land cover was obtained using data from the National Land Cover Database (Table 1). Attachment A, Figure 1 shows the land cover types within and surrounding the Project boundary.

Table 1 Land Cover within the Study Area

Land Cover Category	Type	Acreage	Portion of Project Area
Agriculture	Cultivated Crops	1,013.1	58%
	Pasture/Hay	286.3	16%
Developed	Developed, Open Space	73.8	4%
Forested	Deciduous Forest	356.1	20%
	Evergreen Forest	16.8	<1%
	Mixed Forest	1.4	<1%
Grassland	Herbaceous	12.8	<1%
Wetland	Open Water	1.0	<1%

Source: NLCD 2016

Note: Land cover data are based on Geographic Information System data which may not match the total Project area and creates small variations in area calculations as a result.

2. The legal boundaries of the proposed site are shown in Exhibit I, Application Figures.
3. The proposed facility access control is displayed in Exhibit J, Sheet C.700. A locked gate will secure the access points during operation.
4. The locations of solar panels, the Project substation, and other structures are presented in Exhibit J, Sheets C.200-201. A description of the Project structures is included in Exhibit B and in Exhibit J, Sheet C.700.
5. The proposed locations of access ways and internal roads are presented in Exhibit J, Sheets 200-201. Approximately 39,072 feet (7.4 miles) of graveled access roads will be installed in 48 segments of 400 to 500 feet in length. The Project may use railways for construction deliveries, but the use of specific railways is to be determined.
6. For interconnection, Golden Solar, LLC will construct a Project substation to connect to the North Princeton Switching Station owned by LG&E/KU. The Project substation will be located within the Project area and will have an approximately 300-foot-long generator tie line to the point of interconnect.
7. Caldwell County does not have zoning or setback requirements that Golden Solar is required to follow. Project facilities and structures meet the KRS 278.704(2) 2000-foot setback

requirement for schools, hospitals, and nursing home facilities. Golden Solar will request a setback deviation from any residential neighborhood within 2000 feet.

8. The report in Attachment B and Section 4 details anticipated sound emissions from the facility during construction and operation.

2 Compatibility with Scenic Surroundings

2.1 Requirement

KRS 278.708(3)(b): Evaluate the facility's compatibility with scenic surroundings.

2.2 Compliance

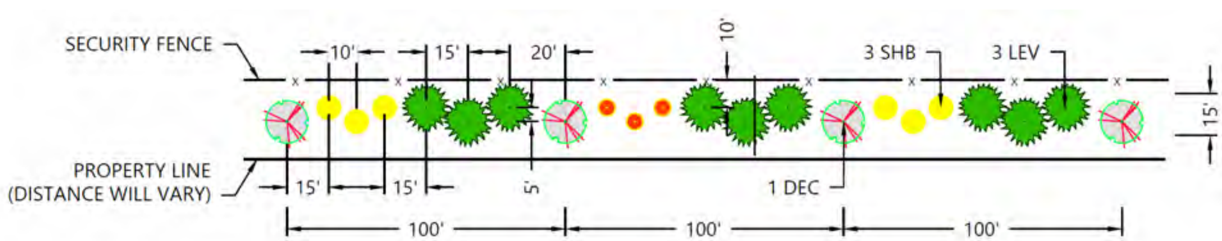
2.2.1 Facility Compatibility: Screening

Sections of the proposed Project boundary will be adjacent to roadways and other properties. Golden Solar will provide screening to mitigate potential visual impacts to the landowners' property. If a vegetation buffer is not already present between the Project boundary and adjacent residential structures, one will be planted. The types of vegetation used in screening will vary due to differences in topography, soils, sun exposure, and other factors. It is important to recognize which plants are appropriate not only for a region but also for a specific site or area. This landscape plan proposes to utilize native landscape material that will be adapted to the climate of this region. The primary intent is to provide visual relief in order to break up the lines of the infrastructure and enhance the overall aesthetics of the Project. Existing landscaping and vegetation along roadways, property lines, and fence rows should be maintained where possible.

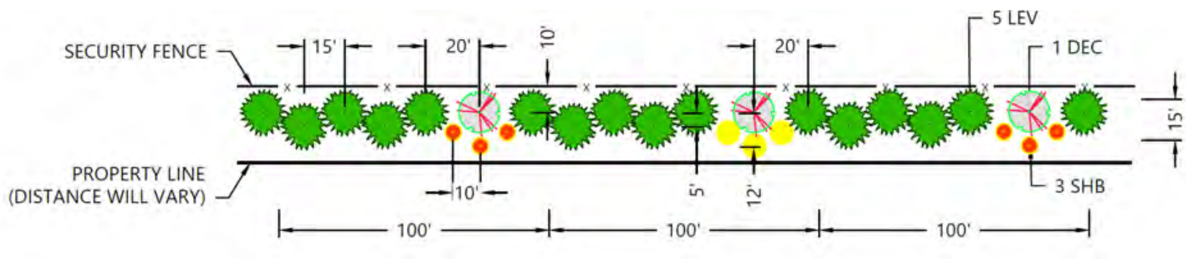
It is important to note that the plans will not provide 100 percent screening or visual obstruction of the Project. The primary intent is to provide visual relief in order to break up the lines of the infrastructure and enhance the overall aesthetics of the Project. To increase screening effectiveness, Golden Solar will use evergreen species such as American Holly, Eastern Red Cedar, Virginia Pine , or other appropriate native or non-invasive species. Deciduous trees and shrubs will also be used in conjunction with the evergreen species. Examples of typical planting concept plans are included below in Insets 1 and 2. The majority of the plantings will be Type 1, which is a mix of evergreen and deciduous species. A Type 2 planting, which is primarily evergreen trees, will be planted near the residential neighborhood on Goodsprings Road to provide a denser buffer for this group of residences.

An estimated 32 buffers are planned, each ranging from 100 feet to 2,350 feet in length (total length of proposed screening is 21,832 feet). The majority of buffers will be planted along the Project perimeter, with a smaller proportion within the Project area. The site plan in Exhibit J shows where these buffer additions are planned (Sheet C.200-201). The trees and shrubs will be planted at a height of 3 and 2 feet and are anticipated to reach a height of 15-30 feet and 8-18 feet at maturity, respectively. Vegetation screening details are included in Exhibit J, Sheet L.100.

The screening plan is preliminary and is subject to change. The plan will be finalized prior to construction based on actual field conditions, including the consideration of residential home line-of-sight observations.



Inset 1. Type 1, Vegetation Screening Concept Plan: Aerial View



Inset 2. Type 2, Vegetation Screening Concept Plan: Aerial View

2.2.2 Facility Compatibility: Glare and Decommissioning

Additionally, a Glare Report (Attachment C) was prepared for the Project and found no impact to sensitive receptors from glare associated with facility infrastructure. Golden Solar will place security lighting at main entrances that are downlit; this lighting will be manually controlled, and motion activated. In addition, lights at each inverter will be switch controlled for repair purposes. Given that adjacent property values are not anticipated to be impacted by the siting of the solar facility (Attachment D), implementation of vegetative screening buffers, and compliance with all regulatory requirements, the Project is compatible with the scenic surroundings.

At the end of the Project's life, Golden Solar will decommission the solar facility and return the land to its previous condition. Golden Solar has prepared a decommissioning methodology (Attachment E) that describes how to the facility will be properly decommissioned.

2.2.3 Public Communication

The Project website (available at https://nationalgridrenewables.com/Golden/) provided the public with details on how to attend the public information meeting, a map showing the Project area, aerial imagery, parcel numbers for all participating properties in Golden Solar, the opportunity to submit questions and comments regarding the Project, a summary of frequently asked questions and responses, and instructions on how to request more information.

During the public information meeting (PIM) discussed in Exhibit C, if neighbors or participating landowners asked questions about scenic impact, the applicant described the proposed screening plan. Contact information was provided at the PIM for follow up from participants.

3 Property Value Impacts

3.1 Requirement

KRS 278.708(3)(c): Analysis of the potential changes generated by the proposed facility siting, construction, and operation that would affect property values and land use for adjacent property owners

3.2 Compliance

A Property Value Impact Report (Attachment D) prepared by a certified real estate appraiser discussed impacts to potential property values for landowners adjacent to the proposed facility. The report found that "properties surrounding other solar farms operating in compliance with regulatory standards will not be adversely affected in either short- or long-term periods." The research notes that "considering all of the preceding, the data indicates that solar facilities do not have a negative impact on adjacent property values."

4 Anticipated Sound Emissions at Property Boundary

4.1 Requirement

KRS 278.708(3)(d): Evaluation of anticipated peak and average levels of noise at the property boundary generated by the facility's construction and operation.

4.2 Compliance

Sound levels generated by facility construction and operations are discussed in the attached Sound Emission Assessment (Attachment B).

In summary, sound generated during construction is expected to only occur during daylight hours and will be generated by heavy equipment, passenger cars and trucks, and tool use during assembly of the Project. Sound generated during Project operation will include sound from the motors on the solar panel tracking system, if used, and from the inverters. The brief and intermittent sound from the tracking system motors will be quiet and only barely perceptible from within the solar panel arrays themselves. Based on the preliminary design, the sound produced by the solar panel inverters during daytime operation will fall below even the nighttime EPA guideline of 45 A-weighted Decibel. At final design, Golden Solar commits to a maximum daytime sound level of 55 A-weighted Decibel and nighttime maximum of 45 A-weighted Decibel. The Sound Emissions Assessment concluded that “any adverse noise impact from the Project during operation is highly unlikely, if [Project] sound emissions are audible at all.”

The amount of sound generated during construction will vary depending on the type of activities occurring on a given day. Grading equipment, bobcats, and other construction equipment typically emit sound levels of approximately 73 dBA at 200 feet (FHWA 2009). Sounds associated with these types of equipment will primarily occur during the initial site set up – grading and access road construction, which is expected to last approximately 10 weeks. It is anticipated that pile driving for rack support foundations will create the loudest sound (72 dBA at 200 feet, FHWA 2009). Installation of each rack support foundation takes between 30 seconds to 2 minutes, depending on soil conditions; the duration of the activity is anticipated to be 12 weeks across the entire Project. Finally, installation of the solar panels on the tracking racks will emit sound levels similar to general construction (72 dBA at 200 feet). Typically, a forklift is used to place individual panels on the tracking rack system. The sounds from all construction activities will dissipate with distance and will be audible at varying levels, depending on the locations of the equipment and receptors. Note that construction activities will be sequenced; site preparation may occur at a portion of the site while pile driving occurs at a different location. These sound impacts will be temporary and limited to daytime hours (dBA) inside of the proposed Project fencing in most cases.

5 Effect on Road, Railways, and Fugitive Dust

5.1 Requirement

KRS 278.708 (3)(e); The anticipated impact on road and rail traffic by the facility's operation, including fugitive dust generated by the traffic and degradation of roads and lands within the vicinity of the facility.

5.2 Compliance

A report discussing the Project's anticipated impact on road and rail traffic levels, fugitive dust from traffic, and degradation of roads caused by Project-affiliated traffic is included in Attachment F. Railways may be used during construction for equipment deliveries but not during facility operations. The results of the report presented in Attachment F are summarized below.

During construction, the traffic volume will temporarily increase from the delivery of construction materials and personnel traveling to and from the Project. Appropriate signage and traffic directing will occur as necessary to increase driver safety and reduce risk of collisions for approaching traffic. Golden Solar will coordinate with the road authority to mitigate for any unanticipated damage to roadways. For facility O&M activities, a small maintenance crew will regularly drive through the area in pick-up trucks, but this activity will not impact traffic function.

Activities that disturb land during the construction of the Project may temporarily add airborne materials. To reduce the contribution of airborne materials, application of water and covering of spoils may occur. The use of water for dust control is authorized under the Kentucky Pollutant Discharge Elimination System as a non-stormwater discharge activity that is required for the Project.

The Fredonia Valley railroad track extends in a southeasterly direction along the northern Project border (https://transportation.ky.gov/MultimodalFreight/Pages/Railroads.aspx). Construction traffic will use the existing public roadway system to access the Project facilities. Railways may be used for deliveries during construction by vendors, such as those providing the main power transformers.

6 Mitigation Measures

6.1 Requirement

KRS 278.708(4): The site assessment report shall also suggest any mitigating measures to be implemented by the applicant to minimize or avoid adverse effects identified in the site assessment report; and KRS 278.708(6); The applicant shall be given the opportunity to present evidence to the board regarding any mitigation measures. As a condition of approval for an application to obtain a construction certificate, the board may require the implementation of any mitigation measures that the board deems appropriate.

6.2 Compliance

Golden Solar will undertake a series of mitigation measures to avoid or minimize potential Project impacts, as outlined below in Table 2.

Table 2 Project Mitigation Measures

Mitigation Measures
1. Golden Solar shall place panels no closer to residences than 200 feet and central inverters no closer to residences than 450 feet. Golden Solar shall place the substation no closer to residences than 1,000 feet.
2. Golden Solar shall leave existing vegetation between solar arrays and nearby roadways in place to the extent feasible.
3. Golden Solar shall implement a planting of evergreen and deciduous trees and shrubs as a visual buffer to mitigate visual viewshed concerns from adjacent residences where there is not adequate vegetation. To the extent an affected property owner indicates such buffer is not necessary, Golden Solar will obtain that property owner's written consent and submit such consent in writing to the Siting Board.
4. Golden Solar shall cultivate at least two acres of native, pollinator-friendly species onsite.
5. Golden Solar shall place appropriate signage to warn potential trespassers. Golden Solar shall ensure site entrances and boundaries have adequate signage, particularly in areas visible to the public.
6. Golden Solar or its contractor shall control access to the site during construction and operation.
7. A fence surrounding the solar arrays shall be installed prior to operation. During construction, the property will be enclosed to the extent possible. The substation and switchyard shall have their own separate security fence installed in accordance with NESC standards.
8. Prior to construction, Golden Solar shall provide a finalized Emergency Response Plan to the local fire district, first responders, and any county emergency management agency. Golden Solar will provide site-specific training for local emergency responders at their request. Access for fire and emergency units will be set up after consultations with local authorities.
9. Prior to commencing construction, Golden Solar shall develop a traffic management plan for operation and construction to minimize the impacts of any traffic and keep roadways safe during construction
10. Golden Solar shall use appropriate signage and traffic signaling as needed to aid construction traffic and prevent severe traffic issues.
11. Golden Solar's construction activity, process, and deliveries shall be limited to 8 am to 6 pm Monday through Saturday. In the case of inclement weather, Sundays may be used as make-up days.
12. Golden Solar shall limit pile driving within 1,000 feet of a residence to 9 am-5 pm Monday-Friday.

13. Golden Solar’s non-noise creating on-site construction activities shall be limited to 6 am to 10 pm, Monday through Sunday. These would include field visits, arrival, departure, planning meetings, mowing, surveying, etc.
14. Golden Solar shall inform and obtain permits from State and local road authorities before bringing oversized or overweight loads onto state or country roads in the vicinity.
15. Golden Solar shall fix or fully compensate the appropriate transportation authorities for damage or degradation to roads or bridges that it causes or to which it materially contributes in compliance with any agreements or permits.
16. Golden Solar shall properly maintain construction equipment and follow best management practices related to fugitive dust throughout the construction process, including use of water trucks. Dust impacts shall be kept at a minimal level. The Siting Board requires Golden Solar's compliance with 401 KAR 63:010.
17. Golden Solar shall notify residents and businesses within 1,500 feet of the Project boundary about the construction plan, noise potential, and mitigation plans at least 30 days prior to construction commencement.
18. Golden Solar shall respond to any noise-related complaints from residents adjacent to the Project boundary and work with those residents to reduce noise-related concerns through careful scheduling or other means to the extent feasible.
19. Golden Solar shall implement ridesharing between construction workers when feasible, use appropriate traffic controls or allow flexible working hours outside of peak hours to minimize any potential delays during AM and PM peak hours.
20. To the extent Golden Solar retires and decommissions the solar facility without any subsequent plans to repower the facility, Golden Solar shall decommission the entire site and restore the land consistent with lease agreements after the Project has served its useful life. With respect to those assets or equipment that cannot be salvaged, Golden Solar or its successors shall recycle or dispose of those assets or equipment in an environmentally appropriate and compliant manner.
21. Golden Solar shall submit a formal decommissioning plan and cost estimate to Caldwell County and the Siting Board prior to operation. Golden Solar shall provide the County a financial surety equal to the amount necessary to effectuate the formal decommissioning plan, minus salvage value. The financial surety amount shall be reviewed every five years at Golden Solar’s expense to determine and update the cost of decommissioning.
22. Golden Solar will submit a final site layout plan to the Siting Board upon completion of the final site design. Changes from the preliminary site layout will be clearly indicated on the final layout graphic. Those changes could include, but are not limited to, the location of solar panels, inverters, transformers, substations, operation and maintenance building, transmission line route, or other Project facilities and infrastructure.
23. Golden Solar will submit to the Siting Board for review any change in the Project boundaries from those referenced in the final order in this proceeding.
24. The Siting Board and the Caldwell County Fiscal Court shall be notified in writing of any (a) abandonment of the Project or (b) acquisition or transfer of ownership, control, or the right to control the Project (whether by sale of assets, transfer of stock, or otherwise). The notice shall update the environmental compliance history provided in Caldwell Solar’s application pursuant to KRS 278.706(2)(i).
25. Golden Solar shall comply with all applicable conditions relating to solar interconnection with utilities. Golden Solar shall also accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid, consistent with the obligations imposed by KRS 278.212.
26. Golden Solar shall implement a Complaint Resolution Program to address any complaints from surrounding landowners. Golden Solar shall also submit annually a status report associated with its Complaint Resolution Program, providing, among other things, the individual complaints, how Golden Solar addressed those complaints, and the ultimate resolution of those complaints.

6.2.1 Stormwater Discharges Associated with Construction Activity

Because the Project will disturb one or more acres of land, it must therefore comply with the National Pollutant Discharge Elimination System requirements of the Clean Water Act (CWA). Golden Solar will implement all mitigation measures required in the Kentucky Department of Environmental Protection Stormwater Construction General Permit that will be obtained from the Kentucky Energy & Environment Cabinet, Department for Environmental Protection, Division of Water (KDOW). In addition, Golden Solar will obtain a Kentucky Pollution Discharge Elimination System (KPDES) (KPDES No: KYR100000) General Permit for Stormwater Discharges Associated with Construction Activity.

6.2.2 Wetlands and Waters of the United States

A wetland delineation was conducted for the Project April 8 - 10, 2020 and May 27, 2021, and the corresponding wetland and waterbody report has been attached in Attachment G of the application. An application for an Approved Jurisdictional Determination will be submitted to the United States Army Corps of Engineers (USACE), Louisville District. The Approved Jurisdictional Determination will contain the USACE determination on which aquatic features within the Project boundary are designated by the CWA as under federal jurisdiction. A USACE Section 404 CWA permit will be required if the Project will impact jurisdictional wetlands or Waters of the United States (WOUS).

The USACE authorizes Nationwide Permits (NWPs) for specific activities within jurisdictional waters, and each NWP has a corresponding Water Quality Certification (WQC) status from KDOW.

The extent of impacts to jurisdictional wetlands or WOUS will determine whether an NWP or Individual 404/401 Permits are required. An NWP and the corresponding 401 General Certification will be authorized if the Project is determined to have minimal impacts to federal and state waters. If the Project qualifies for coverage under the NWP and the corresponding General WQC, the KDOW can authorize the facility by letter at the request of the applicant, with no further documentation required.

If the activity does not qualify, Golden Solar will apply for a CWP Section 404 Individual Permit (IP) from the USACE and an IP to Construct Across or Along a Stream and/or WQC from the KDOW.

Development in, along, or across a stream requires a floodplain permit. One graveled access road is proposed within the boundaries of a floodplain. Golden Solar will obtain a General Permit for Floodplain Development from KDOW and Caldwell County prior to construction.

Attachment A
Figures

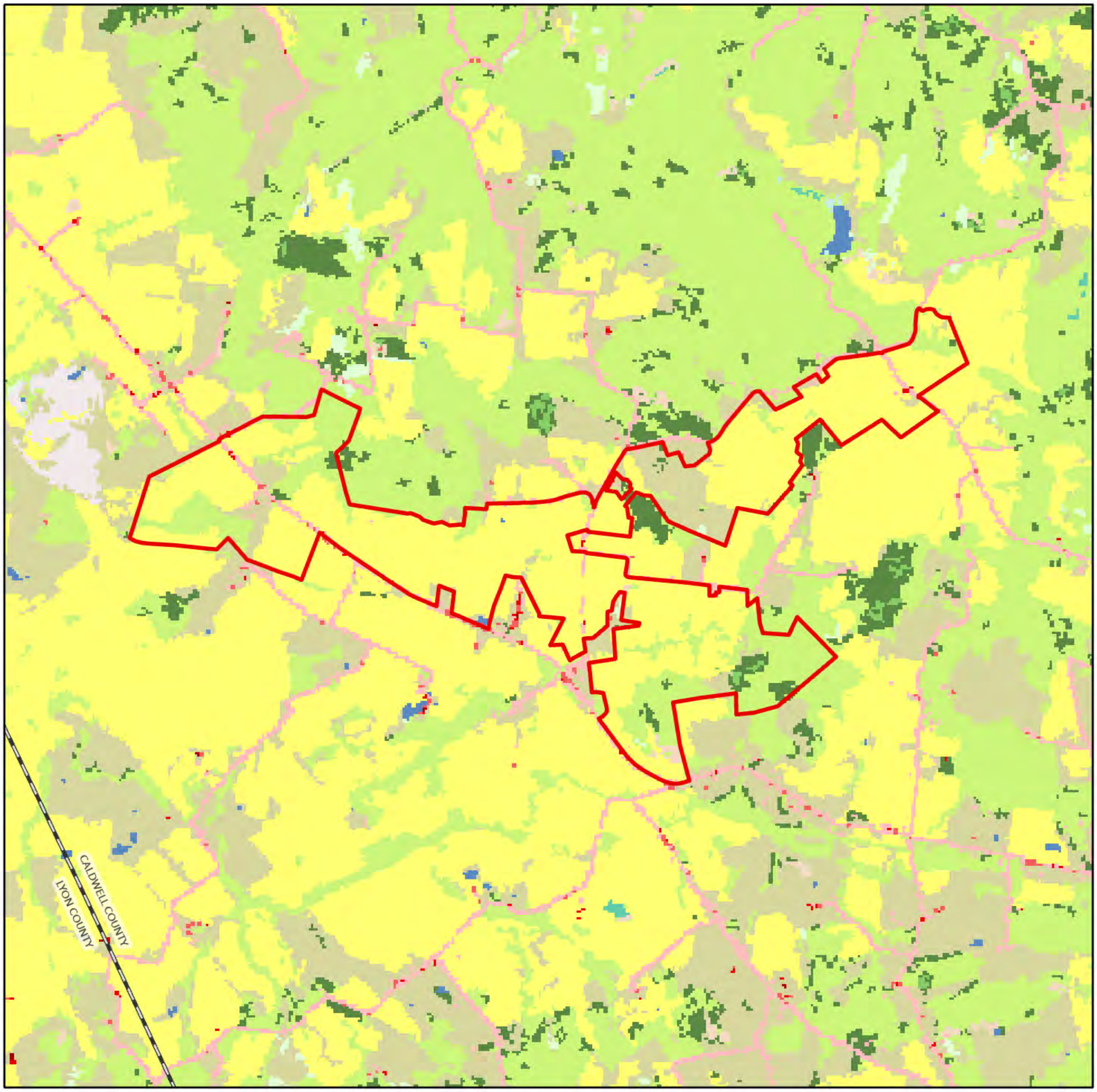


Figure No.
1

Title
Land Cover Map

Project/Client
Golden Solar Project

Project Location
Caldwell County, Kentucky

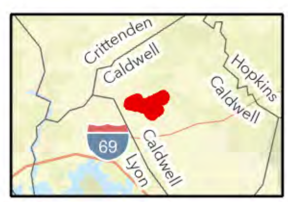
Notes
1. Coordinate System: NAD 1983 2011 StatePlane Kentucky FIPS 1600 Ft US
2. Background Source: Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
3. Data Source: NLCD 2019

Legend

Project Area

Land Cover

- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/ Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands



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Attachment B
Sound Emissions Assessment

Hessler Associates, Inc.
WORLDWIDE CONSULTING IN ENGINEERING ACOUSTICS

Engineering Offices:
5096 N Silver Cloud Dr.
St. George, UT 84770 USA
703-303-0341
www.hesslernoise.com

TECHNICAL REPORT

Title:	Sound Emissions Assessment
Project:	Golden Solar
Location:	Caldwell County, KY
Prepared For:	Cardno
Prepared By:	David M. Hessler, P.E., INCE
Revision:	A
Issue Date:	8/16/22
Reference No:	**TR-2227-061722-A**
Attachments:	**Plot 1** Expected Sound Contours during Normal Daytime Operation **Plot 2** Estimated Sound Contours at Night **Table T-2227-061422-A** Source Input Derivations

1.0 Introduction

A computer noise model of the proposed Golden Solar Project southeast of Fredonia in Caldwell County, Kentucky has been developed to map the operational sound contours from the facility so that its anticipated sound levels at nearby residences can be graphically visualized and evaluated.

This report summarizes the modeling methodology, sound source derivations and the expected far field sound emissions from the facility during normal daytime operations and also at night when the project is essentially idle, but the substation transformer remains energized. Sound emissions during construction are also discussed.

2.0 Modeling Methodology and Source Inputs

2.1 Modeling Methodology

The project has been modeled using the Cadna/A® software program, which was developed specifically for power generation applications. The sound pressure level at any point of interest is calculated from the sum of all individual sources, such as inverters and transformers, in strict accordance with ISO 9613-2 *Acoustics – Attenuation of sound during propagation outdoors*. A mid-range ground absorption coefficient, A_g, of 0.5, on a scale of 0 (reflective) to 1 (completely absorptive), has been used for the entire model space. This value is probably somewhat conservative, since open fields and wooded areas would typically be assigned a higher coefficient resulting in lower receptor levels. No specific credit has been taken for losses through wooded areas due to foliage. ISO standard day conditions of 10 deg. C (50 deg. F) and 70% relative humidity are also assumed.

2.2 Source Inputs

Much more important than the modeling software and propagation assumptions, however, are the source input levels. In this case, there are two principal sound sources associated with normal daytime project operation: the substation step-up transformer and the electric current inverters, which are distributed among the panel arrays. The inverters essentially gather the DC electrical power generated by a section of panels, convert it to alternating current and then send it to the collection substation via underground cables.

The only other sound of any kind that emanates from the project is from the tracking system that intermittently tilts each panel row a few degrees to optimize its angle towards the sun. The motors that drive this function via a worm gear are extremely small, as shown in Figure 2.2.1, and, based on firsthand observations, make no perceptible noise when operating.

Figure 2.2.1
Typical Nextracker Tracking System Motor (Black Cylinder with White Label)

The only sound is a slight creaking/flexing in the panel frames and armatures lasting a few seconds, which is only faintly audible when standing within the panel array itself. Consequently, this sound source is not significant with respect to off-site receptor locations.

2.2.1 Substation Transformer

Transformer suppliers don't generally provide detailed sound emissions information, such as the sound power level or frequency content of the unit's sound, and typically only offer a near field sound pressure level estimate. Consequently, it is common, if not obligatory, practice when noise modeling to derive the octave band sound power level spectrum for transformers using an empirically derived algorithm based on the unit's MegaVolt Ampere (MVA) rating. Numerous transformers over a wide range of sizes and manufacturers were measured in a field study[1] carried out on behalf of the Edison Electric Institute to develop a formulaic relationship between the MVA rating and sound power.

The precise main transformer model, rating and manufacturer for this project has not yet been completely finalized, but the best estimate at this time is for a unit with a maximum rating of 125 MVA. The sound power level (Lw) spectrum associated with this rating is calculated using the EEI methodology in Section 1 of **Table T-2227-061422-A** and tabulated below.

Table 2.2.1.1
Design 125 MVA Main Step-up Transformer Sound Power Level (Lw) Spectrum - Daytime

OBCF[2], Hz	31.5	63	125	250	500	1k	2k	4k	8k	**dBA**
Lw, dB re 1 pW	96	102	104	99	99	93	88	83	76	**100**

It is important to note that this sound power level of 100 dBA re 1 pW[3] is not the sound pressure level that would be observed close to the unit, as might be imagined, but rather is an intangible, mathematical quantity that is derived for modeling purposes from both the near field sound pressure level and the physical size of the unit. As shown in Table T-2227-061422-A, the EEI algorithm predicts a near field sound pressure level (what would be measured with a meter) of 81 dBA for this size unit.

[1] Bolt Beranek and Newman, Inc. on behalf of the Edison Electric Institute, "Electric Power Plant Environmental Noise Guide, Vol. II, 2nd Ed.", Cambridge, MA, 1984.
[2] Octave Band Center Frequency
[3] The notation "re 1 pW" means 'with reference to 1 picoWatt', or 10^{-12} W, and is used to emphasize that the quantity is a power level rather than a more common pressure level, which would be expressed in Pascals.

It is also important to note that the empirical EEI algorithm was developed in the 1980's and now tends to over-predict the sound power levels of modern transformers. As an example, the chart below (Fig. 2.2.1.1) shows the octave band sound pressure level measured 45 m away from a 108 MVA transformer at an operating solar site compared to the sound level derived from the EEI methodology for such a rating.

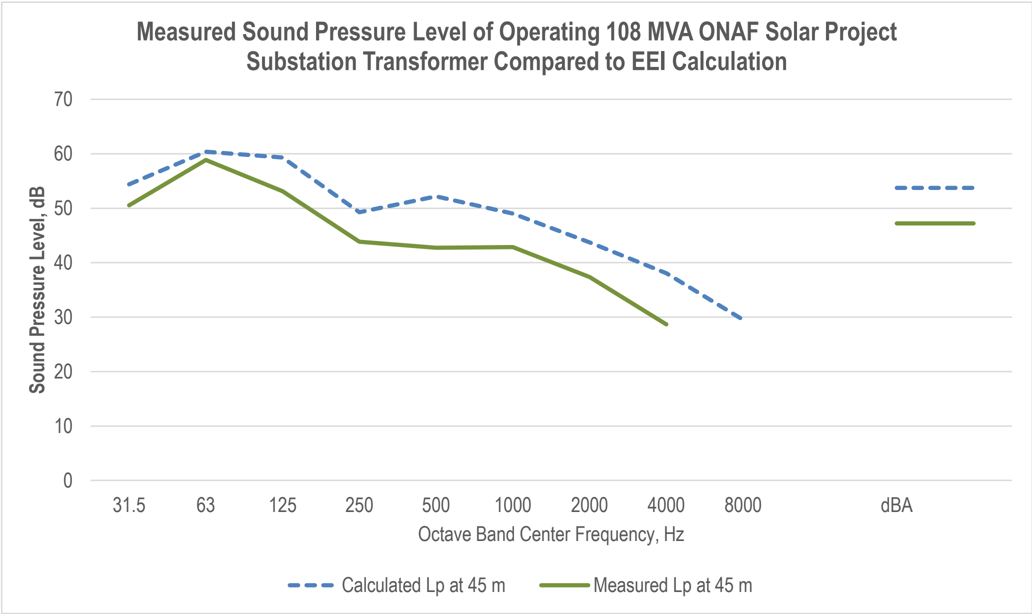


Figure 2.2.1.1

As can be seen, the mathematical algorithm significantly over-estimates the transformer sound level in nearly every octave band and by about 7 dBA overall. Nevertheless, the EEI calculated spectrum in Table 2.2.1.1 has been used in this assessment to model the daytime sound emissions from the substation. This source input is not only likely to be highly conservative due to the calculation methodology itself but also assumes the radiator fans are on at high speed – something that might only happen a few times a year during extraordinarily hot conditions.

At night the project shuts down completely; however, the substation transformer remains energized and back feeds a small amount of house load power to the project (rather than delivering power to the grid) and could also interact with the grid by supplying some reactive compensation. The sound level associated with this mode of operation is probably very minimal, but to be conservative an MVA rating of one half of the maximum for this transformer (63 MVA) has been assumed. This input yields the following sound power level based on the (likely conservative) EEI methodology.

Table 2.2.1.2
Design 63 MVA Main Step-up Transformer Sound Power Level (Lw) Spectrum - Nighttime

OBCF, Hz	31.5	63	125	250	500	1k	2k	4k	8k	**dBA**
Lw, dB re 1 pW	92	98	100	95	95	89	84	79	72	**95**

2.2.2 Inverters

At the present time the specific inverter model for the project has not yet been completely finalized but the Power Electronics (PE) Model HEM FS4200 M is currently anticipated. Detailed sound emissions information on this particular model is not available from the manufacturer; however, a thorough field sound survey of a slightly smaller, but otherwise similar, PE Model HEM FS3430 MU unit has been carried out at an operating solar project to quantify the unit's sound power level.

Figure 2.2.2.1
Power Electronics Model HEM FS3430 MU inverter during Field Sound Test

All the significant noise emerges from the cooling air intakes on both sides of the package (three louvers in Fig. 2.2.2.1) and is broadband in nature (i.e. with a smooth, bland spectrum) and free from any tonal content, even when measured a few inches out.

The sound power level was derived from sound pressure level measurements taken at 5, 10 and 20 m, which, after accounting for the expanding wave front area, essentially collapse to a single average power level of 89 dBA re 1 pW, as detailed in Table 2227-061422-A. This result has been scaled up by 0.9 dB from 3430 kW to 4200 kW, based on the log ratio of the power ratings, to a design sound power level of **90 dBA re 1 pW**.

Table 2.2.2.1
Design Inverter Sound Power Level (Lw) Spectrum (PE HEM FS4200 M)

OBC F, Hz	31.5	63	125	250	500	1k	2k	4k	8k	**dBA**
Lw, dB re 1 pW	87	94	89	85	88	85	84	76	72	**90**

3.0 Model Results and Assessment of Operational Sound

The calculated A-weighted sound contours from the project during full operation on a sunny day are shown in **Plot 1** relative to the nearest residences, which have been identified from aerial images of the site. The contours are taken out to a low value of 40 dBA (thick blue contour) for informational purposes, but the threshold for any potentially adverse noise impact may be essentially taken as 45 dBA (thick orange contour). A sound level of 45 dBA is a common design goal and regulatory limit for *nighttime* sound emissions. This value originates from guidelines[4] published many years ago by the U.S. Environmental Protection Agency, where a maximum day-night average (Ldn) sound of 55 dBA is recommended for “outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.” The descriptor Ldn is a derived quantity based on 24 hourly average levels with a 10 dB factor applied to nighttime levels to account for the greater sensitivity to noise at night. In simpler terms, an Ldn of 55 dBA essentially translates to 55 dBA during the day and 45 dBA at night.

As can be seen from Plot 1, all residences in the project area are well outside of the 45 dBA sound contour. Moreover, all residences are also outside of the 40 dBA contour, which generally represents a project sound level that is so low in absolute terms that any disturbance is highly

[4] U.S. Environmental Protection Agency, Office of Noise Abatement and Control, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," EPA/ONAC 550/9-74-004, March, 1974.

unlikely even in quiet rural environments with very low background levels. Consequently, little or no adverse community reaction is anticipated during normal daytime operations. The specific predicted maximum sound levels at the four nearest residences are noted as design points 1 through 4 in the graphic. These levels range from 33 to 36 dBA, which, based on many years of field survey experience, is likely comparable to or even lower than the existing natural background level.

At night all of the inverters are inactive and any possible noise from the project would be confined to the immediate vicinity of the substation. The conservatively estimated sound contours from the project at night are shown in **Plot 2**. This figure shows that all residences are well beyond even the low 40 dBA contour. Levels in the extremely quiet 23 to 29 dBA range are calculated at the nearest houses. These very low levels indicate that any adverse noise impact at night is also highly unlikely.

In addition to the overall A-weighted sound level, the potentially tonal character of the sound from the substation transformer and inverters must also be considered. Identifiable tonal sounds can lead to complaints even when the overall A-weighted sound level is fairly low.

In this case, the sound emissions from the substation transformer are not expected to contain any prominent discrete tones at the nearest residences, which are at least 2500 feet from the substation. Transformers are normally tonal in the near field, but the prominence of any tones drops away quickly with distance and becomes insignificant, usually within 150 to 500 ft. For example, the 108 MVA solar project transformer discussed in conjunction with Figure 2.2.1.1 above had no prominent tones remaining at only 45 m (148 ft.) - as shown in the A-weighted 1/3 octave band frequency spectrum plotted in Figure 3.0.1.

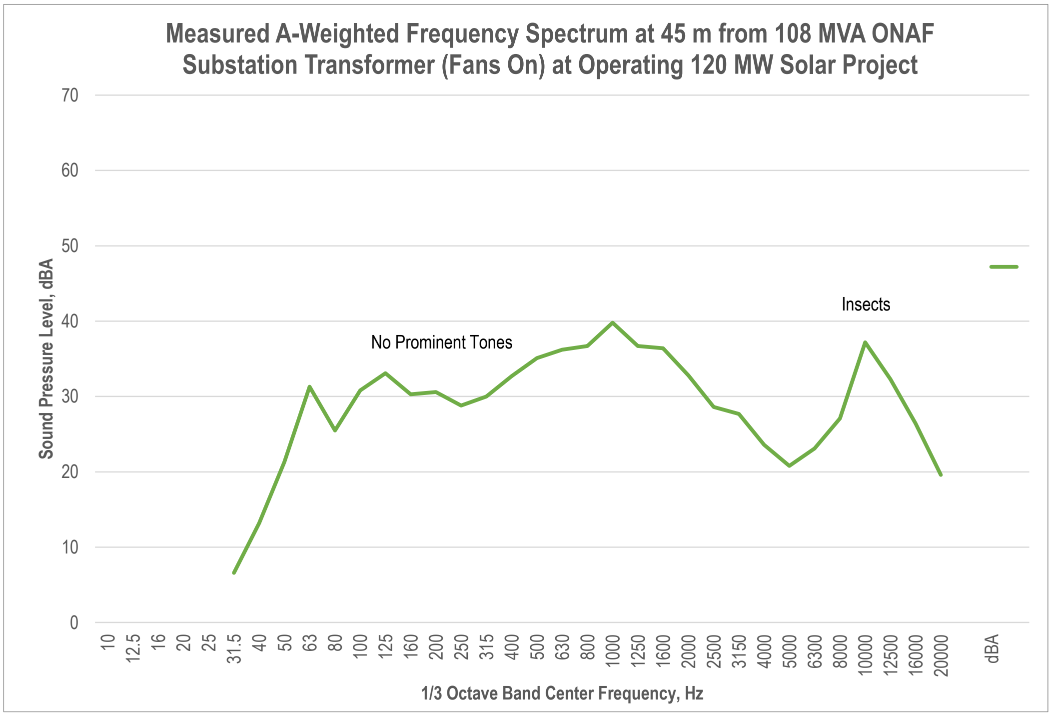


Figure 3.0.1

The only tone that appears in the measurement is a peak at 10 kHz due to cicadas. The small peak at 60 Hz, which *is* from the transformer, is not significant or even audible, since in the lower frequencies (<125 Hz) the prominence must be at least 15 dB above the average of the neighboring bands to constitute a tone as defined in Annex B.1 of ANSI/ASA S12.9-2013/Part 3[5].

As mentioned earlier, no tonality at all was observed from the PE HEM FS3430 MU inverter used as a prototype for the somewhat larger but otherwise similar 4200 kV units planned for this project. Figure 3.0.2 below shows the measured 1/3 octave band frequency spectra at incremental distances ranging from a few inches to 100 m out. No prominent tonal spikes were observed at any distance.

[5] American National Standards Institute/Acoustical Society of America, ANSI/ASA S12.9-2013/Part 3, *Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-term Measurements with an Observer Present*, Melville, NY, 2013.

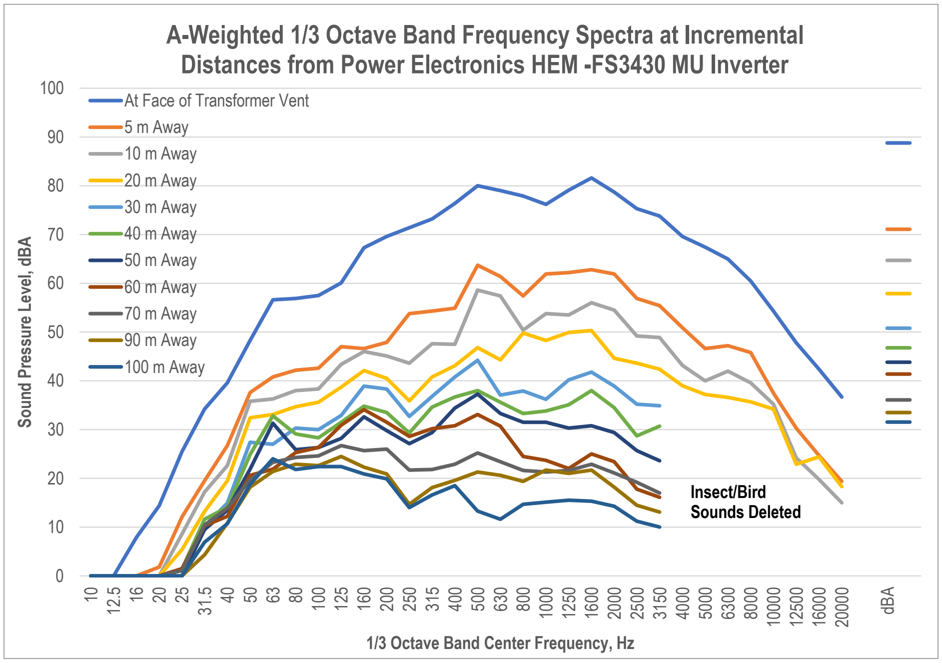


Figure 3.0.2

Consequently, it can be reasonably concluded that due to the distances from the substation to any homes and the atonal character of the likely inverters, that the project will not produce any potentially disturbing prominent discrete tones at any potentially sensitive receptors in the area.

4.0 Construction Noise

In contrast to other forms of power generation, the construction phase of a solar energy facility is relatively short in duration and the activities that generate any significant noise are few. Where a fossil or wind project would require extensive earthworks and the pouring of massive concrete foundations over a period of many months, a solar energy project only involves the installation of the mounting posts for the panel racks along with some trenching and road building activities.

As illustrated in the contour plots, the project is generally located in existing open fields some distance from the nearest residences. Consequently, much of the time construction will be occurring at locations that are thousands of feet from any residences.

In general, it is very difficult to quantify or evaluate construction noise in a meaningful way because the noise itself is highly variable with time as individual pieces of equipment start and stop, move forward and backward and, in this case, operate in different parts of the project area, which extends approximately 4.5 miles from end to end. Nevertheless, Table 5.0.1 gives representative sound levels from construction equipment associated with the different phases of construction relevant to this project. Figures are given at the standard test distance of 50 feet[6] and at 500 and 2000 feet. The 500 foot distance very generally represents the nearest approach of any construction activity to neighboring homes and quantifies the highest sound level that might occur from construction near the edges of the project area. The 2000 foot distance gives the sound levels that are more representative of what might be heard at other residences at more typical distances from any construction activities.

Table 5.0.1

Typical Construction Equipment Sound Levels per the FHWA by Phase

Equipment Description	Typ. Sound Level at 50 ft., dBA	Est. Maximum Total Level at 50 ft. per Phase, dBA[1]	Est. Maximum Total Level at 200 ft. per Phase, dBA	Est. Maximum Total Level at 500 ft. per Phase, dBA	Est. Maximum Total Level at 2000 ft. per Phase, dBA
Earthmoving Road, Substation Construction and Electrical Line Trenching					
Dozer	85	85	73	63	47
Front End Loader	80				
Grader	85				
Backhoe	80				
Pile (Support Post) Driving					
Vermeer PD10 Pile Driver[2]	84	84	72	62	46
Truck Traffic Material Delivery and Installation					
Flatbed Truck	84	84	72	62	46

[1] Not all vehicles are likely to be in simultaneous operation. Maximum level represents the highest level realistically likely at any given time.
[2] Best available estimate from piling equipment manufacturers.

While the sound levels 50 feet from the equipment are significant, as might be expected, the sound levels at hundreds or thousands of feet away are fairly moderate and would only occur temporarily and intermittently during the construction period.

Concrete foundations are not normally used for the panel arrays. The most common method of installing the solar array support posts is to drive them into ground with a small mobile driver, such as a Vermeer PD-10, that is specifically designed for this task. The driving process consists of a rapidly repetitive, variable, metallic impact noise, lasting perhaps 20 seconds per post, or longer depending on the nature of the ground. Because the driver moves quickly from post to post

[6] U. S. Dept. of Transportation, Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, Table 1, Jan. 2006.

it is not practical to block or contain the noise with any kind of temporary noise barrier. Consequently, this activity will be unavoidably audible for some distance and may result in some annoyance. On the other hand, this activity is short-lived and would proceed fairly quickly, only occurring for a period of days in any one area of the site. Precise and reliable data on the actual sound level generated by post driving is not generally available, but unverified indications from Vermeer and the German pile driver company, Gayk, suggest that the sound level is roughly in the 84 to 88 dBA range at 50 ft. The 84 dBA value from Vermeer appears to be the most credible.

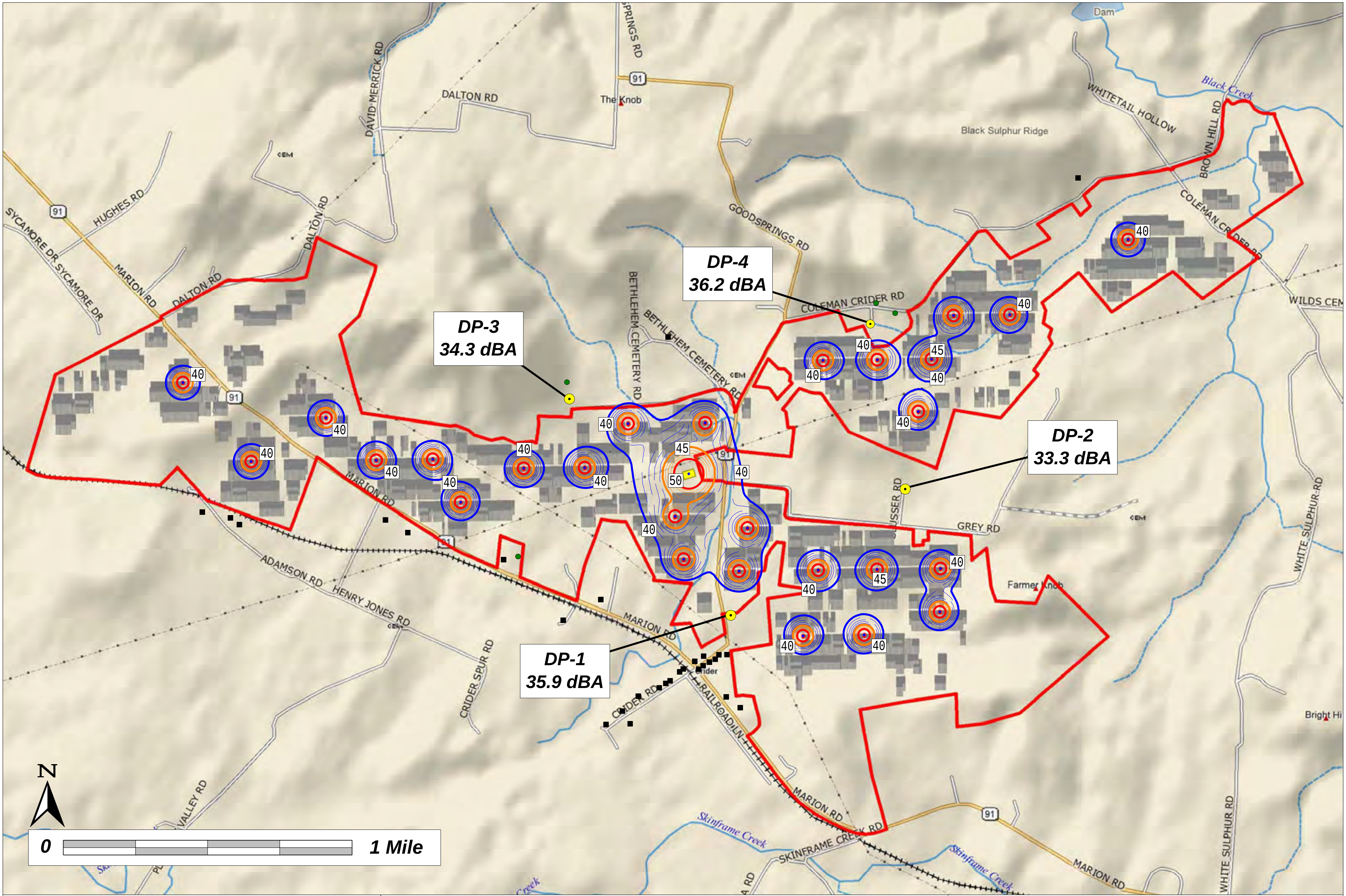
There is no need for concrete pouring beyond the substation area. The inverters and other electrical equipment will either sit on gravel pads, metal skids or drop-in prefabricated concrete slabs. Concrete pouring is only likely for the transformer basin in the substation. A concrete pump truck and its servicing mixers typically generate a sound level of about 82 dBA at 50 feet[7], or roughly at the boundary of the substation. At the nearest residence approximately 2,500 ft. away, this sound level would theoretically decrease to 42 dBA or less and occur only intermittently during the day; probably only for a day or two.

5.0 Conclusions

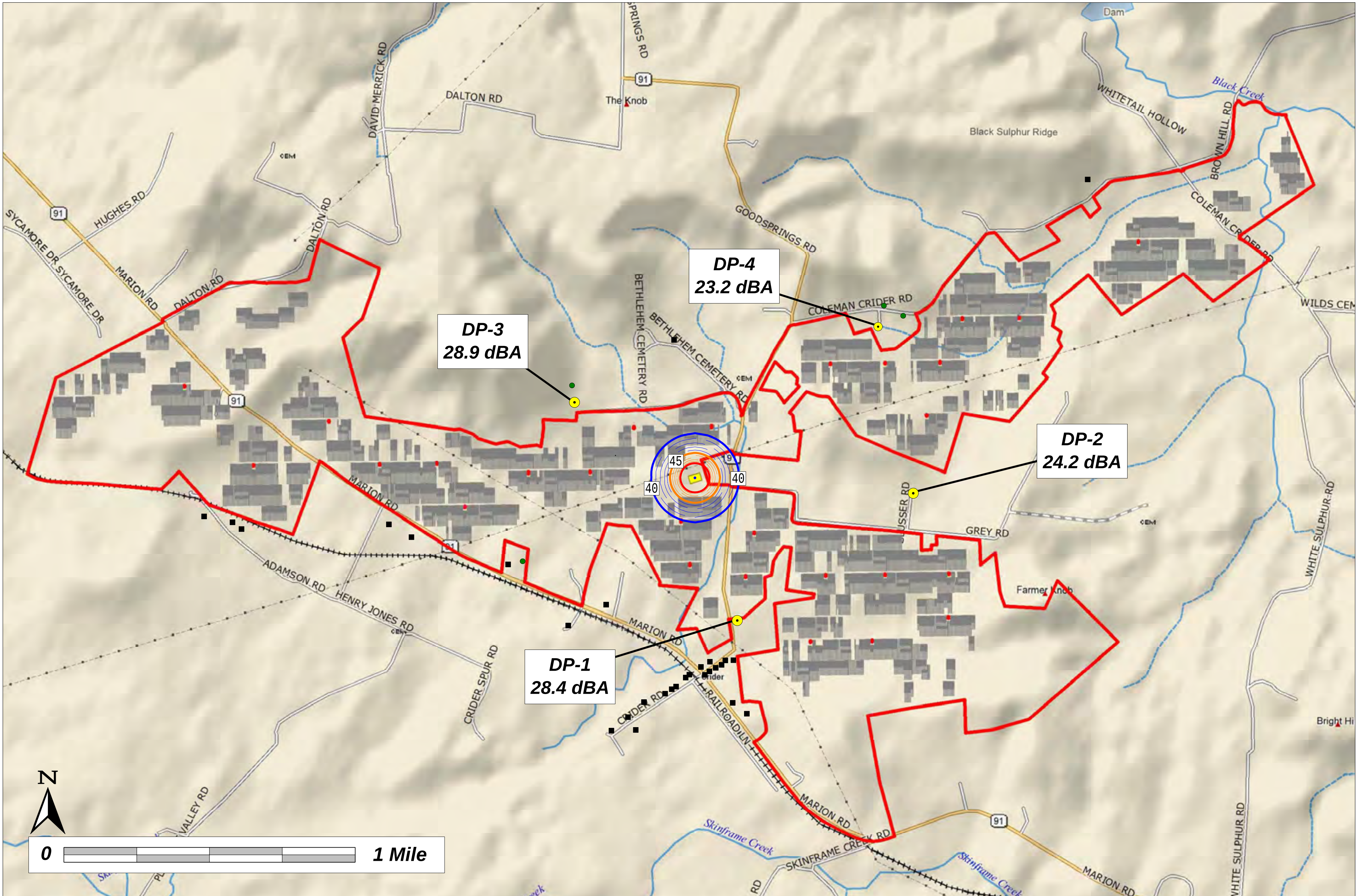
A noise model of the proposed Golden Solar Project has been developed based on a conservative algorithm for the substation transformer sound level and firsthand measurements of a comparable inverter. The model results show that during normal sunny day operation the expected sound levels at the nearest residences are well below the daytime design goal of 55 dBA. Nighttime levels are even lower and also well below the nighttime 45 dBA design goal. In addition, no prominent tones are expected from any of the equipment at any potentially sensitive receptors. Consequently, no significant adverse noise impact is anticipated from the project during normal operation.

During construction some disturbance may temporarily occur at some neighboring residences during the pile driving phase. Because this activity is constantly moving, the impact at any given location will be short-lived. In most instances, the nearest residences to the project area are thousands of feet away buffering the potential effect of any construction activities.

[7] Ibid.



Project:		Description:	Legend:
Golden Solar		**Plot 1**	Project Boundary
Prepared for:		**Predicted Sound Contours (dBA) of Facility during Daylight Operation**	Residence
Cardno			Design Point
Date: June 21, 2022	Drawing #: CGS-Rev-C-1-1		



Project: Golden Solar	
Prepared for: Cardno	
Date: June 15, 2022	Drawing #: CGS-Rev-B-2-1

Description:

Plot 2

Predicted Sound Contours (dBA) of Facility during Nighttime Operation

Legend:

- Project Boundary
- Residence
- Design Point

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Table: T-2227-061422-A
Title: Substation Transformer and Inverter Sound Power Level Deriviations
Project: Golden Solar
Revision: A
Date: 6/21/22

Octave Band Center Frequency, Hz

Descriptor			31.5	63	125	250	500	1000	2000	4000	8000	dBA	dBC
1. Main Step Up Transformer in Collector Substation													
A. Daytime - Sound Power Level Estimate Based on Max. MegaVolt Ampere (MVA) Rating - ONAF2													
Max Expected MVA Rating (ONAF2) (1)	**125**	MVA										99	
Standard NEMA Rating		NEMA = 55 +12 log (MVA), per EEI Guide (2)										80	
Size Factor (10 log s) Based on MVA												19	
Frequency Adjustment Factors			-3	3	5	0	0	-6	-11	-16	-23		
Near Field Lp(1 m) Based on NEMA Rating			77	83	85	80	80	74	69	64	57	**81**	
Lw = NEMA Rating + Size Factor + Freq. Adj. Factors													
Design Max. Lw for Modeling - Daytime			**96**	**102**	**104**	**99**	**99**	**93**	**88**	**83**	**76**	**100**	Day
B. Nighttime - Sound Power Level Based on Estimated Min. MegaVolt Ampere (MVA) Rating - ONAN													
Estimated MVA Rating (ONAN) (3)	**63**	MVA										95	
Standard NEMA Rating		NEMA = 55 +12 log (MVA), per EEI Guide (2)										77	
Size Factor (10 log s) Based on MVA												18	
Frequency Adjustment Factors			-3	3	5	0	0	-6	-11	-16	-23		
Near Field Lp(1 m) Based on NEMA Rating			74	80	82	77	77	71	66	61	54	**77**	
Lw = NEMA Rating + Size Factor + Freq. Adj. Factors													
Design Lw for Modeling - Nighttime			**92**	**98**	**100**	**95**	**95**	**89**	**84**	**79**	**72**	**95**	Night

(1) Oil Natural Air Forced (ONAF2), All radiator fans on high speed.
(2) Edison Electric Institute, "Electric Power Plant Environmental Noise Guide", 2nd Ed., BBN, 1984.
(3) Oil Natural Air Natural (ONAN), All radiator fans off.

2. Evaluate Validity of Transformer Sound Power Level Algorithm

Check Calculated vs. Measured Level for Typical Solar Project Substation Transformer

Descriptor			31.5	63	125	250	500	1000	2000	4000	8000	dBA	dBC
MVA Rating of Observed Unit at ONAF	**108**	MVA										98	
Standard NEMA Rating		NEMA = 55 +12 log (MVA), per EEI Guide (2)										79	
Size Factor (10 log s) Based on MVA												19	
Frequency Adjustment Factors			-3	3	5	0	0	-6	-11	-16	-23		
Near Field Lp(1 m) Based on NEMA Rating			76	82	84	79	79	73	68	63	56	**80**	
Lw = NEMA Rating + Size Factor + Freq. Adj. Factors													
Calculated Lw			**95**	**101**	**103**	**98**	**98**	**92**	**87**	**82**	**75**	**99**	
Path Attenuation to Measurement Point:													
Source Receiver Distance	**45**	m											
Hemispherical Distance Loss, m	45		-41	-41	-41	-41	-41	-41	-41	-41	-41		
Air Absorption (10°C / 70%RH), m	45		0	0	0	0	0	0	0	-1	-2		
Anomalous Attenuation, m	45		0	0	0	0	0	0	0	0	-1		
Other Loss			0	0	0	0	0	0	0	0	0		
ISO Ground Absorption			0	0	-3	-8	-5	-2	-2	-2	-2		
Sum of Path Attenuation:			-41	-41	-44	-49	-46	-43	-44	-44	-46		
			31.5	63	125	250	500	1000	2000	4000	8000	dBA	
Calculated Lp at 45 m	Calculated Lp at 4		54	60	59	49	52	49	44	38	30	**54**	54
Measured Lp at 45 m	Measured Lp at 4		51	59	53	44	43	43	37	29		**47**	47

Conclude: EEI Method Highly Conservative

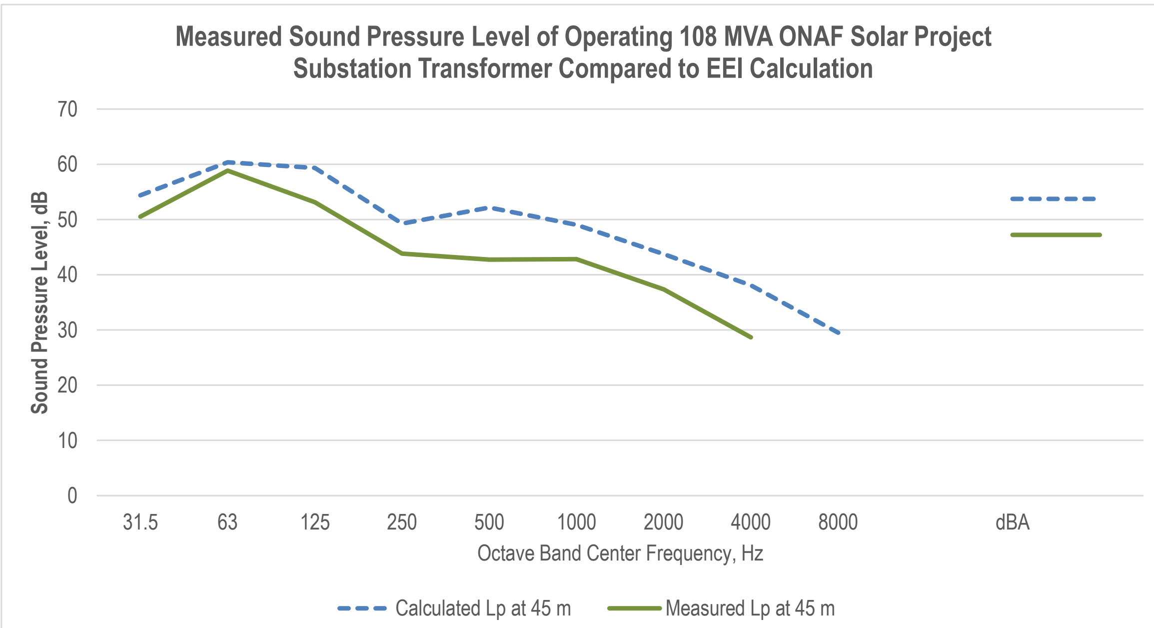
See Plot p. 2

Notes:
Lp = Sound Pressure Level, dB re 20 μPa
Lw = Sound Power Level, dB re 1 pW

Hessler Associates, Inc.
WORLDWIDE CONSULTING IN ENGINEERING ACOUSTICS

Table: **T-2227-061422-A** Page: **2**
Title: **Substation Transformer and Inverter Sound Power Level Deriviations**
Project: **Golden Solar**
Revision: **A**
Date: **6/21/22**

Descriptor			Octave Band Center Frequency, Hz **31.5**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**dBA**	**dBC**



3. Power Electronics Model HEM FS4200 M Inverter

Use Field Measurements of a Power Electronics Model HEM FS3430 MU Inverter as a Baseline for Derivation.
Sound power level derived from field measurements at operating FS3430 MU site.
All significant noise from transformer ventilation air discharge each side of unit

Descriptor			31.5	63	125	250	500	1000	2000	4000	8000	dBA	dBC
A. Measured Lp at 5 m	W13 7-28-21		64.2	71.5	66.6	65.7	69.0	65.6	64.8	56.0	50.5	71.1	
Test Distance	5	m											
1/4 Sphere Wavefront Area at Test Point	79	m^2											
Nominal Lw			83.1	90.4	85.5	84.7	88.0	84.6	83.8	75.0	69.5	**90**	
B. Measured Lp at 10 m	W14 7-28-21		60.8	68.4	63.6	59.2	64.0	57.5	57.7	49.3	45.3	64.7	
Test Distance	10	m											
1/4 Sphere Wavefront Area at Test Point	314	m^2											
Nominal Lw			85.7	93.3	88.6	84.1	89.0	82.5	82.7	74.2	70.3	**90**	
C. Measured Lp at 20 m	W15 7-28-21		57.3	65.0	59.8	53.4	53.1	54.3	50.9	43.8	41.5	57.9	
Test Distance	20	m											
1/4 Sphere Wavefront Area at Test Point	1257	m^2											
Nominal Lw			88.3	96.0	90.8	84.4	84.1	85.3	81.9	74.8	72.5	**89**	
FS3430 MU Lw (Ave. of 3 Test Points)			**86**	**93**	**88**	**84**	**87**	**84**	**83**	**75**	**71**	**89**	
Scale up to HEM FS4200 M Capacity (4200kV)													
10 log (4200/3430)			0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9		
Design HEM FS4200 M Inverter Lw			**87**	**94**	**89**	**85**	**88**	**85**	**84**	**76**	**72**	$\boxed{\textbf{90}}$	

Attachment C
Glare Report

HMMH
700 District Ave, Suite 800
Burlington, Massachusetts 01803
781.229.0707
www.hmmh.com

MEMORANDUM

To: Golden Solar, LLC - c/o Courtney Pelissero

From: Philip DeVita, HMMH

Date: July 19, 2022

Subject: Golden Solar, LLC Glare Analysis

Reference: HMMH Job No.309700.023

Introduction

Harris Miller Miller & Hanson Inc. (HMMH) completed a glare analysis on behalf of Golden Solar, LLC for the proposed up to 100 MW solar project located just northwest of Princeton, Kentucky in Caldwell County. The analysis evaluated potential glare from the proposed project on sensitive roadway observer locations on nearby Coleman Crider Road, Dalton Road, Goodsprings Road, Grey Road, and Marion Road (Route 91) along with nearby residences since no airports were identified within four miles of the project location. **Figure 1** shows the project location relative to the nearby roadways.

HMMH used the latest version of the GlareGauge solar glare tool, formerly known as the Solar Glare Hazard Analysis Tool (SGHAT) developed by Sandia National Laboratories and Forgesolar to analyze potential glare at the roadway locations. GlareGauge is used to assess glare impacts at airport observation locations from solar photovoltaic (PV) projects and is currently the best tool available for analyzing solar glare impacts from PV projects and has the ability to simulate glare to observers along a continuous roadway segment and at residential locations. In lieu of specific county standards, model results were reviewed and compared relative to the 2013 Federal Aviation Administration's (FAA) Interim Policy of Solar Projects at Airports[1], specifically standards for pilots on final approach.

Design Parameters

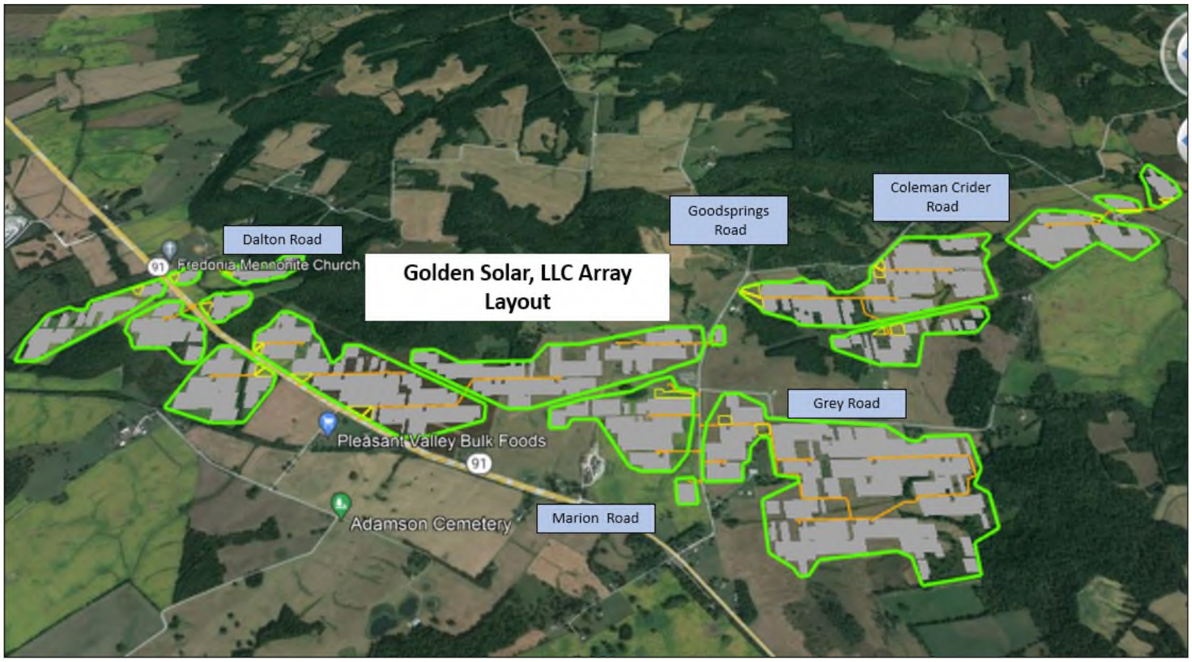
In deploying the model, we selected the footprint of the solar project array locations of the Golden Solar, LLC on the GlareGauge map interface and input the project design parameters provided by National Grid Renewables as shown in **Table 1.**

Table 1. Golden Solar, LLC Proposed Project Design Parameters

Solar System	System	Orientation	Tilt Angle	Panel Height (AGL)
Golden Solar, LLC Array	***Single Axis***	***180°***	***60°[1]***	***20 feet***

The Project is proposing up to 100 MW single axis tracking system with a tracking orientation north to south and a maximum tracking angle of 60°. The panels will be located on the ground, and a height of up to 20 feet above ground level was assessed for the modules.

[1] https://www.federalregister.gov/documents/2013/10/23/2013-24729/interim-policy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports



Source: Google Earth

Figure 1. Golden Solar, LLC Relative to Nearby Roadways

Background to FAA Airport Sensitive Receptors and Pilot Analysis

Interim Policy for Solar Projects at Airports as Published on October 23, 2013

To assess airport sensitive receptors, the FAA requires an evaluation of potential glare for pilots on final approach and at the air traffic control tower (ATCT). The FAA published an Interim Policy for Solar Projects at Airports on October 23, 2013. The policy clarifies the FAA's jurisdiction in reviewing solar projects and the standards it uses to determine if a project will result in a negative glare impact to airspace safety.

The Policy also describes the standards for measuring ocular impact:

To obtain FAA approval and a "no objection" to a Notice of Proposed Construction Form 7460-1, the airport sponsor will be required to demonstrate that the proposed solar energy system meets the following standards: (1) no potential for glint or glare in the existing or planned Air Traffic Control Tower cab, and (2) no potential for glare or "low potential for after-image" (shown in green) along the final approach path.

Table 2 presents the airport sensitive receptors that must be evaluated, the potential results presented by the GlareGauge model and whether the result complies with the FAA ocular hazard standard presented in the Policy.

Table 2. Levels of Glare and Compliance with FAA Policy

Airport Sensitive Receptor	Level of Glare	Color Result	Compliance with FAA Policy
ATCT Cab	No glare	None	Yes
	Low Potential for After-Image	Green	No
	Potential for After-Image	Yellow	No
	Potential for Permanent Eye Damage	Red	No
Aircraft along final approach path	No glare	None	Yes
	Low Potential for After-Image	Green	Yes
	Potential for After-Image	Yellow	No
	Potential for Permanent Eye Damage	Red	No

Any glare recorded on the ATCT is not compliant with FAA policy and will not receive a "no objection" determination from the FAA. Measurement of *low potential for after-image* or "Green" is acceptable for aircraft on final approach but greater levels (indicated in yellow and red) are not allowed.

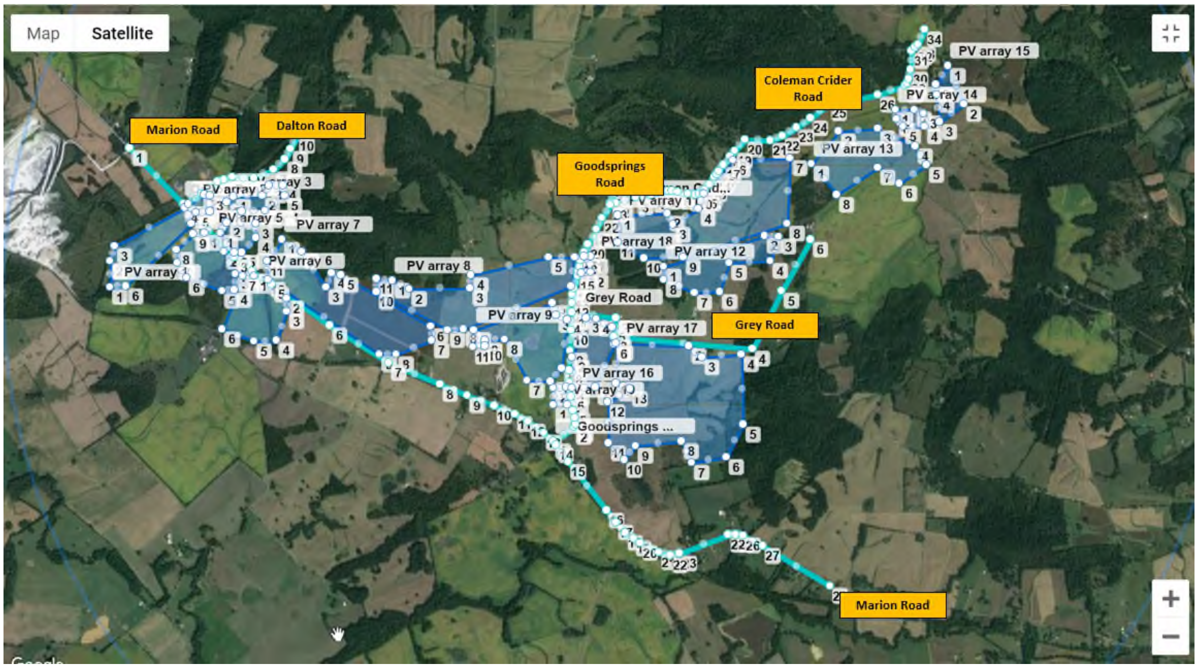
Summary of Results for Nearby Roadway and Residential Observation Locations

HMMH analyzed the potential for the Golden Solar, LLC Project to produce glare at nearby roadway and residential observation locations using GlareGauge. As discussed, the GlareGauge model is currently the best tool available for analyzing solar glare impacts from PV projects and is able to simulate glare from proposed solar PV projects to observers along a continuous roadway segment and at residential locations.

Methodology

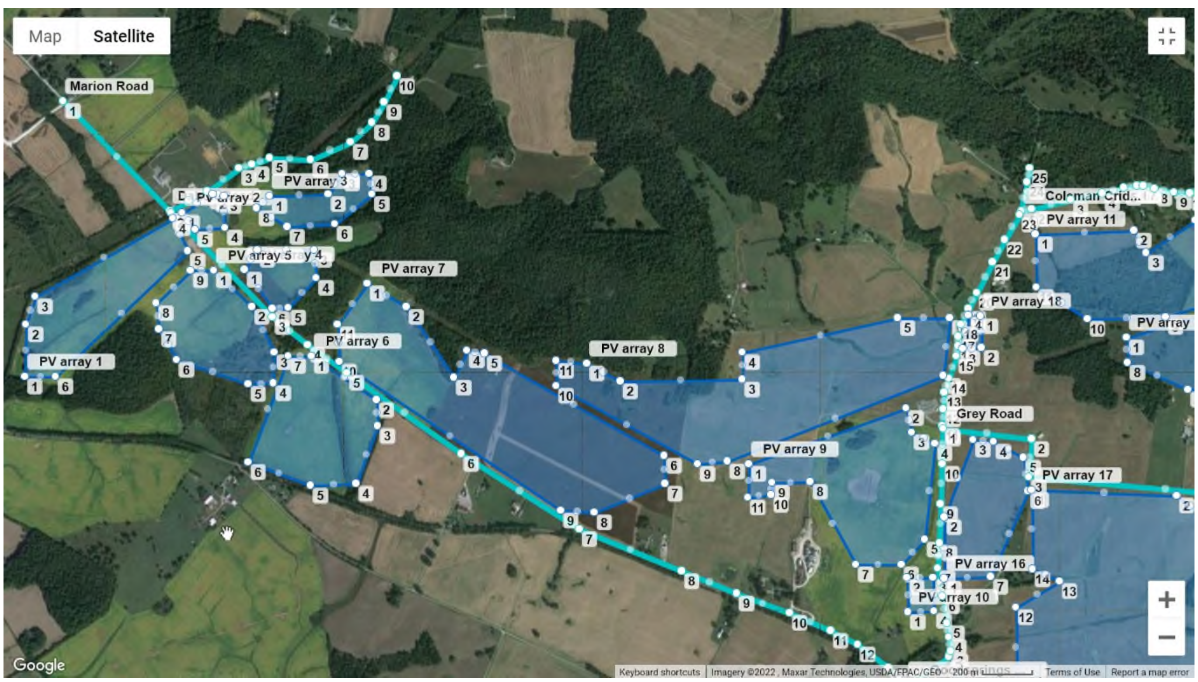
For the roadway analysis, the closest nearby main roadways of Route 91 which runs essentially southeast-northwest, Dalton Road on the western boundary, Goodsprings Road which runs north-south and bisects a portion of the project, Grey Road which branches off Goodsprings Road which runs east-west and bisects a portion of the project and Coleman Crider Road which also branches off Goodsprings Road on the northern portion were analyzed as they traverse near the project boundaries. **Figure 2** shows the Project array boundaries and roadway segment locations from the GlareGauge model selected for analysis, while **Figure 3** shows only the array boundaries as input into GlareGauge for the northern and southern portions of the project, respectively while **Figure 4** shows the array boundaries with the residence receptor locations as input into GlareGauge for the northern, southern, eastern, and western portions of the project, respectively.

The roadway segments are depicted in light green/blue (teal) in **Figure 2** while the residence locations are depicted as red dot and labeled in orange in **Figure 4**.



Source: GlareGauge

Figure 2 Route 91, Route 641 and Interstate 69 Roadway Segments Analyzed in GlareGauge



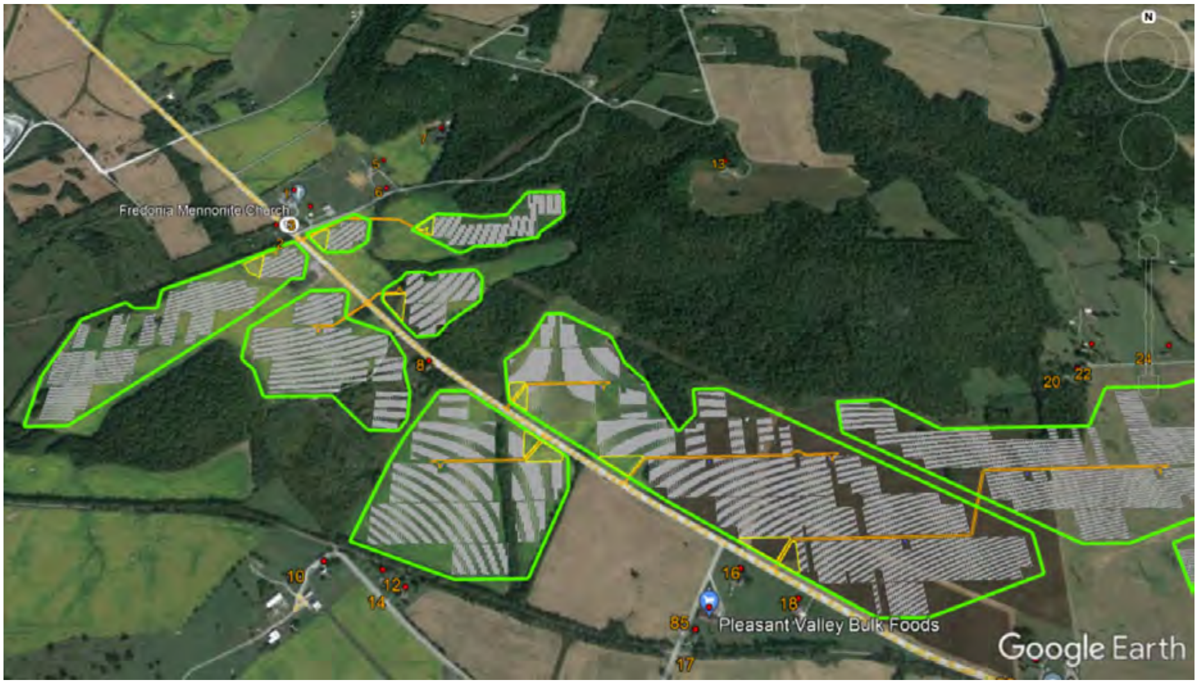
Source: GlareGauge

Figure 3 PV Array Boundaries Analyzed in GlareGauge (northern, central and southern boundaries)

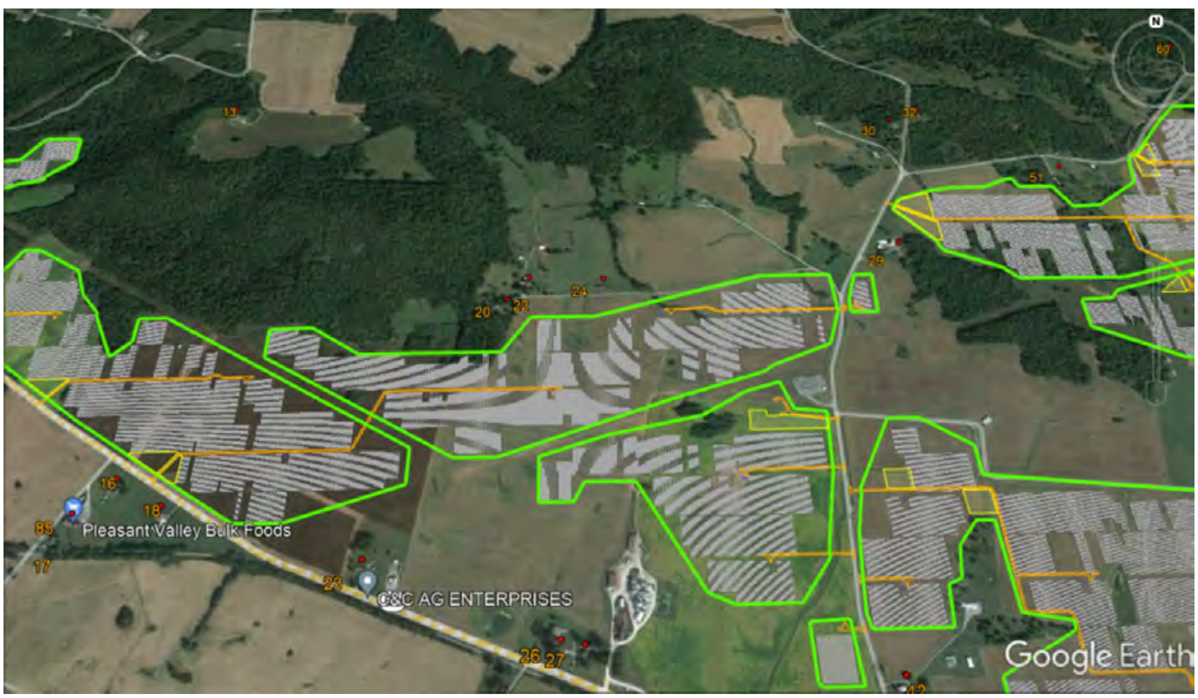
Source: GlareGauge

Source: GlareGauge

Figure 3 PV Array Boundaries Analyzed in GlareGauge (northern, central and southern boundaries)

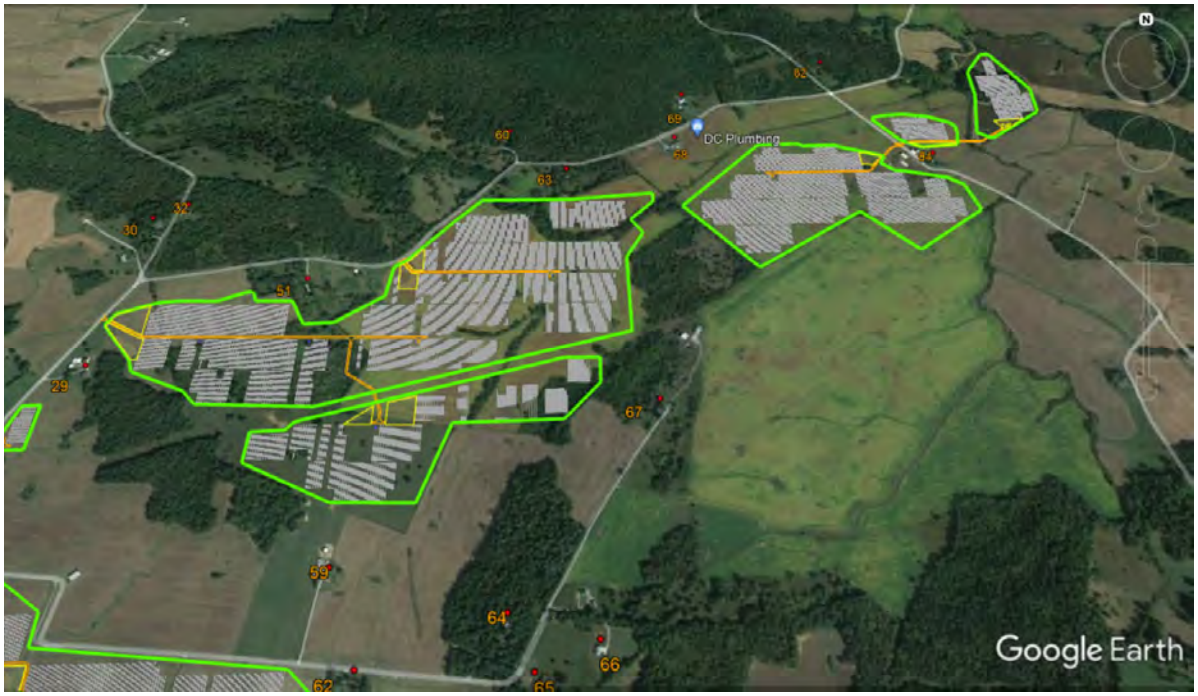


Source: Google Earth



Source: Google Earth

Figure 4 Residence Locations Analyzed in GlareGauge (northern, southern, eastern, and western boundaries)



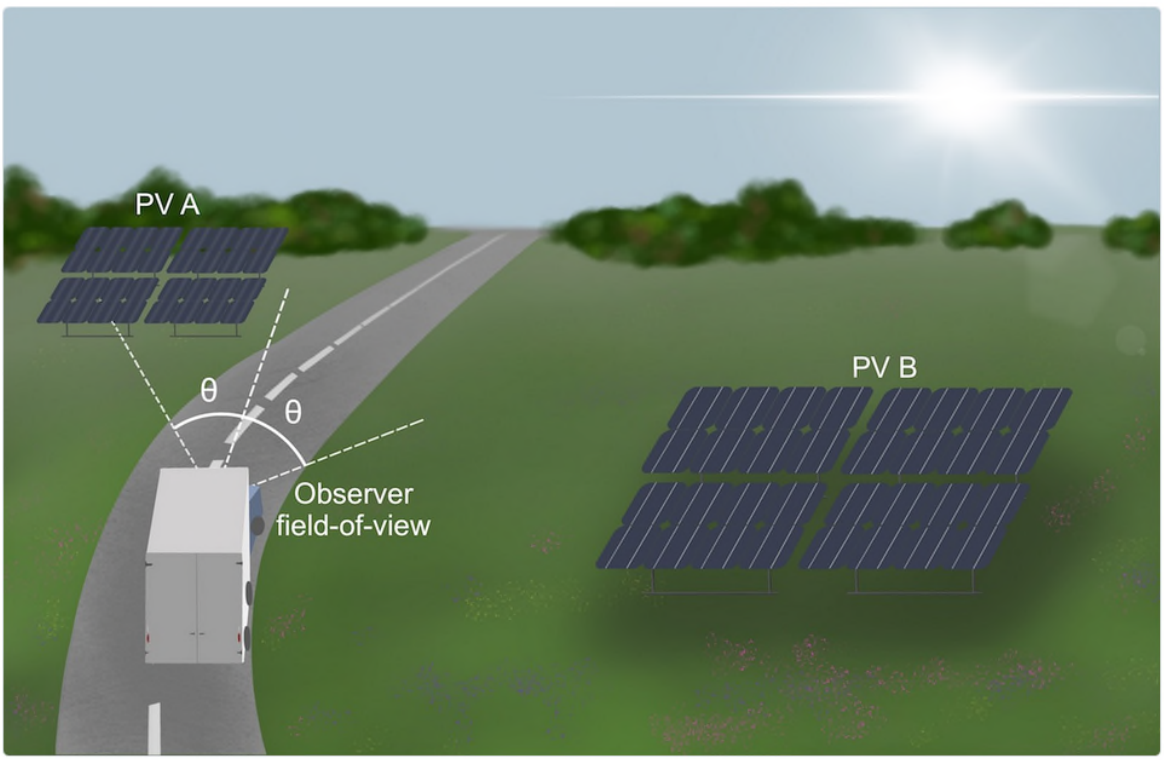
Source: Google Earth

Source: Google Earth

Figure 4 Residence Locations Analyzed in GlareGauge (northern, southern, eastern, and western boundaries)

HMMH input the same specifications of the project array design parameters as described above in **Table 1**. A smooth panel surface without any anti-reflective coating was assumed to provide maximum flexibility in module selection.

The model was run for a full calendar year to calculate information for every sun position scenario over a typical year and the model assessed potential for glare at one-minute intervals. A viewing height of 6 feet above ground level was chosen as the height of the residential observer and the roadway observer as well as assuming two-way viewing meaning the observers travel along the route in both directions. A viewer default angle of 50° was chosen as the field of view where the observer can see 50 degrees to the left and right for a total field of view of 100°. **Figure 5** shows a depiction of the route field of view in GlareGauge.



*Route receptor field-of-view is defined by view angle (theta) to left and right. Default FOV is 100° (i.e. 2 * 50° view angle).*

Source: GlareGauge

Figure 5. Route Receptor Field of View in GlareGauge

A summary of the model output is presented in **Table 3** for the Route 91 (Marion Road), Dalton Road, Coleman Crider Road, Goodsprings Road, and Grey Road observer segments while **Table 4** includes a summary of the 68 residential observation points. The modeling result output sheets for the roadway locations and residential locations are provided as **Attachment A** and **Attachment B.** As shown in **Table 3**, no glare was detected by the model for any of the PV locations at the nearby roadway observer locations.

Table 3 – GlareGauge Results (in minutes per year) for the Golden Solar, LLC Project for Portions of Route 91, Dalton Road, Coleman Crider Road, Grey Road, and Goodsprings Road

Site	Fixed/Tracker System	(orientation/tilt)	Route 91 (Marion Road)	Dalton Road	Coleman Crider Road	Goodsprings Road	Grey Road	Comply with FAA Thresholds for Pilots
Golden Solar, LLC	Single Axis Tracker	180° (max tracker of 60°)	0	0	0	0	0	Yes

Table 4 – GlareGauge Results (in minutes per year) for the Golden Solar, LLC Project for Nearby Residential Locations

Site	Fixed/Tracker System	(orientation/tilt)	Receptor	Minutes of Glare	Comply with FAA Thresholds for Pilots
Golden Solar, LLC	Single Axis Tracker	180° (max tracker of 60°)	26	0	Yes
			27	0	Yes
			39	0	Yes
			44	0	Yes
			46	0	Yes
			47	0	Yes
			41	0	Yes
			43	0	Yes
			38	0	Yes
			36	0	Yes
			40	0	Yes
			10	0	Yes
			12	0	Yes
			14	0	Yes
			55	0	Yes
			52	0	Yes
			49	0	Yes
			48	0	Yes
			42	0	Yes
			23	0	Yes
			18	0	Yes
			16	0	Yes
			8	0	Yes
			79	0	Yes
			77	0	Yes

Table 3 – GlareGauge Results (in minutes per year) for the Golden Solar, LLC Project for Nearby Residential Locations (cont.)

Site	Fixed/Tracker System	(orientation/tilt)	Receptor	Minutes of Glare	Comply with FAA Thresholds for Pilots
Golden Solar, LLC	Single Axis Tracker	180° (max tracker of 60°)	74	0	Yes
			73	0	Yes
			70	0	Yes
			72	0	Yes
			17	0	Yes
			37	0	Yes
			54	0	Yes
			62	0	Yes
			29	0	Yes
			22	0	Yes
			13	0	Yes
			2	0	Yes
			7	0	Yes
			59	0	Yes
			64	0	Yes
			67	0	Yes
			51	0	Yes
			60	0	Yes
			30	0	Yes
			32	0	Yes
			1	0	Yes
			3	0	Yes
			5	0	Yes
			24	0	Yes
			20	0	Yes

Table 3 – GlareGauge Results (in minutes per year) for the Golden Solar, LLC Project Nearby Residential Locations (cont)

Site	Fixed/Tracker System	(orientation/tilt)	Receptor	Minutes of Glare	Comply with FAA Thresholds for Pilots
Golden Solar, LLC	Single Axis Tracker	180° (max tracker of 60°)	68	0	Yes
			69	0	Yes
			82	0	Yes
			66	0	Yes
			80	0	Yes
			81	0	Yes
			76	0	Yes
			78	0	Yes
			75	0	Yes
			84	0	Yes
			6	0	Yes
			63	0	Yes
			35	0	Yes
			34	0	Yes
			33	0	Yes
			85	0	Yes
			65	0	Yes
			86	0	Yes

As discussed above, measurement of no or Low Potential for After-Image or Green is acceptable for aircraft on final approach, but greater levels (indicated in yellow and red) are not allowed.

Any potential solar glare to the vehicles traveling along the nearby roadways and residential locations is very similar or representative to aircraft along final approach in the FAA standards. Therefore in lieu of county specific standards, the standards of acceptable ocular impact as contained in the 2013 FAA policy for aircraft on final approach were applied to the vehicles traveling along these sections of Route 91, Dalton Road, Grey Road, Coleman Crider Road, Goodsprings Road, and nearby residential locations. It should be noted that the model results are conservative in that the GlareGauge model does not consider potential obstacles associated with the landscape such as trees, buildings or hills which could block a direct view of the solar panels to the nearby observer locations.

Based on the design and layout of the Golden Solar, LLC Project as modeled, the GlareGauge modeling showed no glare detected along portions of Route 91, Dalton Road, Grey Road, Goodsprings Road, Coleman Crider Road, and nearby residential locations accordingly, the proposed design locations for these arrays meets the 2013 FAA Standard for aircraft at each modeled observer location. Therefore, there is no evidence based upon our modeling of the potential array locations that glare from the Project will cause an adverse impact for drivers along analyzed portions of Route 91, Dalton Road, Grey Road, Goodsprings Road, Coleman Crider Road and nearby residential locations.

Conclusions

HMMH utilized the GlareGauge model developed by the Department of Energy's Sandia National Laboratories and Forge Solar to evaluate potential glare from a proposed Golden Solar, LLC Project located just northwest of Princeton, Kentucky in Caldwell County. The analysis evaluated potential glare from the proposed project on sensitive roadway observer locations on nearby Route 91, Dalton Road, Grey Road, Goodsprings Road, Coleman Crider Road and nearby residential locations since no airports were identified within four miles of the project location.

GlareGauge is used to assess glare impacts at airport observation locations from solar photovoltaic (PV) projects for comparison to FAA Solar Glare Standards and is currently the best tool available for analyzing solar glare impacts from PV projects. It also has the ability to simulate glare to observers along a continuous roadway segment and at residential observers. In lieu of county standards, GlareGauge model results were compared to the 2013 FAA's ocular hazard standard for pilots to determine adverse impacts. **Attachment A** and **Attachment B** show the GlareGauge modeling results for the nearby roadway segments and residential locations.

Based on the preferred array design of the Golden Solar, LLC Project, the GlareGauge modeling showed no glare detected along portions of Route 91, Dalton Road, Grey Road, Goodsprings Road, Coleman Crider Road and residential observers, accordingly, the proposed design and locations for these arrays meets the 2013 FAA Standard for aircraft at each modeled observer location. *Therefore, there is no evidence based upon our modeling of the potential array locations that glare from the Project will cause an adverse impact for drivers along analyzed portions of Route 91, Dalton Road, Grey Road, Goodsprings Road, Coleman Crider Road, and residential observation locations.*

Attachment A

GlareGauge Modeling Results – Golden Solar, LLC - Project Design Roadway and Residential Locations 1-40

FORGESOLAR GLARE ANALYSIS

Project: **Golden Solar, LLC**

Single Axis Tracking

Site configuration: **Golden Solar LLC Arrays**

Site description: Single Axis Tracker

Created 05 Jul, 2022
Updated 06 Jul, 2022
Time-step 1 minute
Timezone offset UTC-6
Site ID 71834.12518
Category 10 MW to 100 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

Component Data

PV Arrays

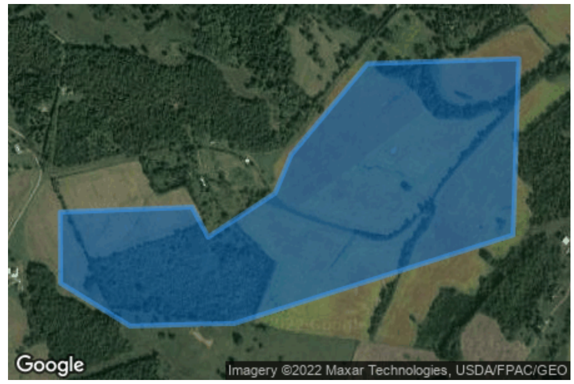
Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.168891	-88.015151	471.85	20.00	491.85
2	37.170806	-88.015129	481.62	20.00	501.62
3	37.171849	-88.014700	490.78	20.00	510.78
4	37.174700	-88.008339	521.21	20.00	541.21
5	37.173503	-88.007674	513.00	20.00	533.00
6	37.168918	-88.013730	479.01	20.00	499.02

Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

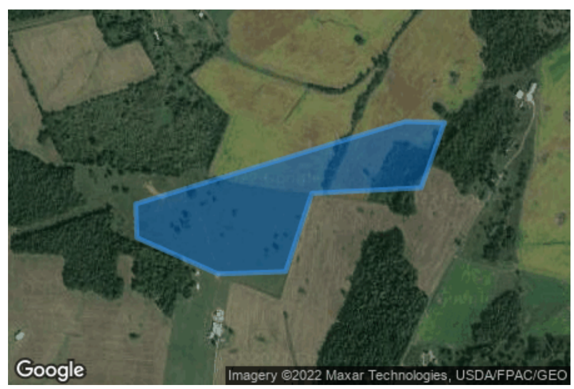
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.160249	-87.974446	472.55	20.00	492.55
2	37.161506	-87.974468	464.01	20.00	484.01
3	37.161514	-87.973277	478.64	20.00	498.64
4	37.160274	-87.973234	470.75	20.00	490.75

Name: PV array 11
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



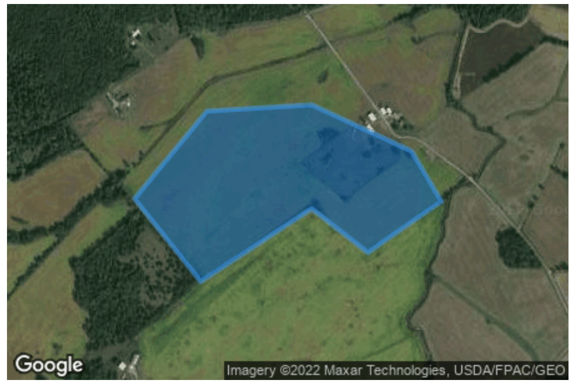
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174116	-87.968552	551.47	20.00	571.47
2	37.174252	-87.964024	504.07	20.00	524.07
3	37.173432	-87.963467	501.71	20.00	521.71
4	37.174628	-87.961171	483.18	20.00	503.18
5	37.175671	-87.960624	489.99	20.00	509.99
6	37.178165	-87.957994	467.27	20.00	487.27
7	37.178302	-87.952801	453.81	20.00	473.81
8	37.173488	-87.952998	469.68	20.00	489.68
9	37.171075	-87.962568	510.77	20.00	530.77
10	37.171007	-87.966151	592.62	20.00	612.62
11	37.172170	-87.968533	564.99	20.00	585.00

Name: PV array 12
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.170340	-87.964370	546.04	20.00	566.04
2	37.172597	-87.955100	478.60	20.00	498.60
3	37.172563	-87.953770	474.48	20.00	494.48
4	37.170785	-87.954564	504.97	20.00	524.97
5	37.170631	-87.958319	473.30	20.00	493.30
6	37.168495	-87.959218	483.20	20.00	503.20
7	37.168427	-87.961536	517.25	20.00	537.25
8	37.169418	-87.964325	571.83	20.00	591.83

Name: PV array 13
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

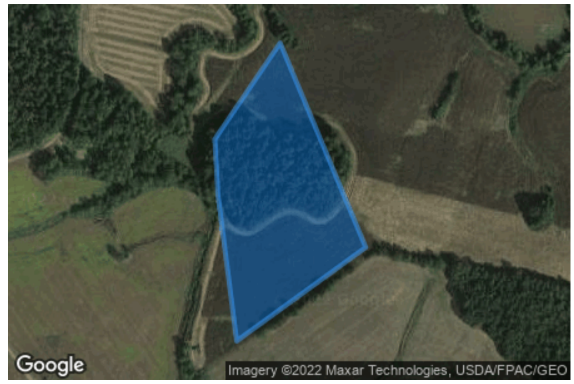


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.177897	-87.950761	448.40	20.00	468.40
2	37.180291	-87.948272	436.80	20.00	456.81
3	37.180462	-87.944667	440.68	20.00	460.68
4	37.179197	-87.941234	433.76	20.00	453.76
5	37.177829	-87.940204	433.16	20.00	453.17
6	37.176427	-87.942736	444.01	20.00	464.02
7	37.177624	-87.944667	462.20	20.00	482.20
8	37.175640	-87.948487	468.20	20.00	488.20

Name: PV array 14
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.181835	-87.943033	427.24	20.00	447.24
2	37.181886	-87.941317	426.32	20.00	446.32
3	37.181570	-87.940458	427.08	20.00	447.08
4	37.180595	-87.940426	426.70	20.00	446.70
5	37.180629	-87.942368	444.36	20.00	464.36
6	37.181202	-87.943001	435.59	20.00	455.60

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

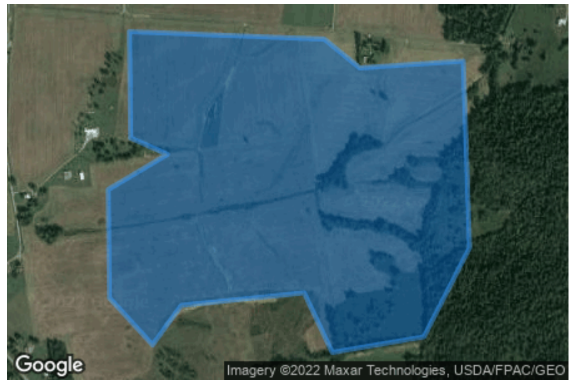


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.185047	-87.938256	423.20	20.00	443.20
2	37.182258	-87.936787	477.58	20.00	497.58
3	37.180981	-87.939002	424.96	20.00	444.96
4	37.182972	-87.939324	432.15	20.00	452.15
5	37.183733	-87.939378	431.87	20.00	451.87

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.161475	-87.972767	474.48	20.00	494.48
2	37.163750	-87.972767	469.77	20.00	489.77
3	37.166588	-87.971436	472.74	20.00	492.74
4	37.166520	-87.970492	481.54	20.00	501.54
5	37.165921	-87.969098	479.22	20.00	499.22
6	37.164690	-87.968904	479.55	20.00	499.55
7	37.161547	-87.970612	477.48	20.00	497.48

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.164745	-87.968745	478.76	20.00	498.76
2	37.164540	-87.962050	504.71	20.00	524.71
3	37.163753	-87.960827	504.92	20.00	524.92
4	37.163941	-87.957265	515.12	20.00	535.12
5	37.158845	-87.957051	514.02	20.00	534.02
6	37.156417	-87.958617	557.54	20.00	577.54
7	37.155989	-87.961771	541.38	20.00	561.38
8	37.157614	-87.962737	503.68	20.00	523.68
9	37.157272	-87.966964	517.20	20.00	537.20
10	37.156195	-87.967951	520.73	20.00	540.73
11	37.157477	-87.969432	473.56	20.00	493.56
12	37.160436	-87.969475	468.78	20.00	488.78
13	37.161393	-87.967436	481.86	20.00	501.86
14	37.161838	-87.968702	482.70	20.00	502.70

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.171122	-87.971084	488.15	20.00	508.15
2	37.169951	-87.971062	480.08	20.00	500.08
3	37.169925	-87.971921	475.90	20.00	495.90
4	37.171148	-87.971642	483.99	20.00	503.99

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174931	-88.007918	519.01	20.00	539.01
2	37.175614	-88.006513	519.11	20.00	539.11
3	37.175546	-88.005987	514.71	20.00	534.71
4	37.174383	-88.005944	512.69	20.00	532.69
5	37.174307	-88.007307	517.12	20.00	537.12

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.175533	-88.003872	534.54	20.00	554.54
2	37.175601	-88.001169	547.96	20.00	567.96
3	37.176353	-88.000546	563.63	20.00	583.63
4	37.176353	-87.999280	559.12	20.00	579.12
5	37.175601	-87.999152	536.76	20.00	556.76
6	37.174507	-88.000890	536.69	20.00	556.69
7	37.174404	-88.003078	526.07	20.00	546.08
8	37.175088	-88.004473	527.58	20.00	547.58

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172826	-88.005052	511.13	20.00	531.13
2	37.173561	-88.004430	525.47	20.00	545.47
3	37.173544	-88.001812	552.90	20.00	572.90
4	37.172518	-88.001748	567.83	20.00	587.83
5	37.171424	-88.003035	543.66	20.00	563.66
6	37.171389	-88.003744	530.76	20.00	550.76

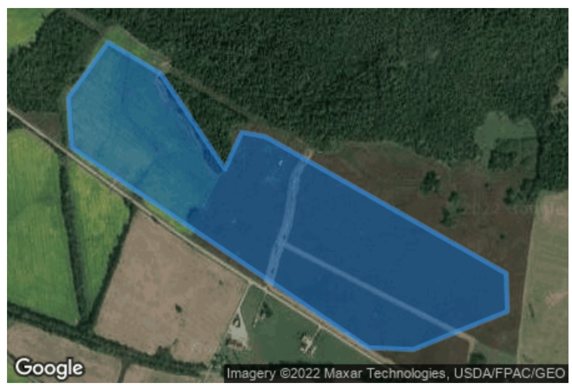
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172811	-88.006473	512.93	20.00	532.93
2	37.171450	-88.004681	520.85	20.00	540.85
3	37.169796	-88.003680	517.79	20.00	537.80
4	37.168659	-88.003723	492.79	20.00	512.79
5	37.168616	-88.004850	510.62	20.00	530.62
6	37.169522	-88.008165	553.59	20.00	573.59
7	37.170633	-88.008980	533.26	20.00	553.26
8	37.171600	-88.009109	536.21	20.00	556.21
9	37.172796	-88.007510	515.32	20.00	535.32

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

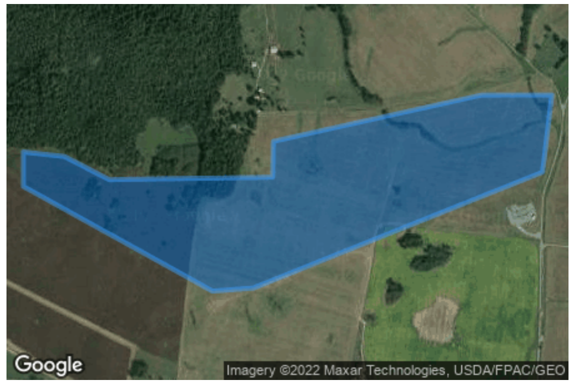
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169670	-88.001931	489.38	20.00	509.38
2	37.168037	-87.998948	470.46	20.00	490.46
3	37.167093	-87.998909	470.72	20.00	490.72
4	37.164956	-87.999891	464.22	20.00	484.22
5	37.164887	-88.001983	477.72	20.00	497.72
6	37.165768	-88.004880	482.47	20.00	502.47
7	37.169658	-88.003013	503.02	20.00	523.02

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



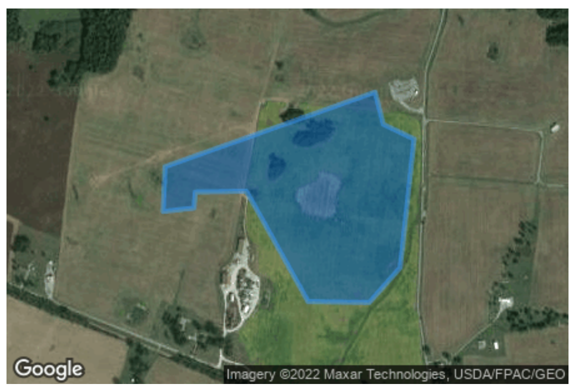
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172323	-87.999389	502.73	20.00	522.73
2	37.171451	-87.997565	499.86	20.00	519.86
3	37.168852	-87.995377	487.33	20.00	507.33
4	37.169861	-87.994797	480.27	20.00	500.27
5	37.169742	-87.993982	476.74	20.00	496.74
6	37.166001	-87.985699	475.20	20.00	495.20
7	37.164957	-87.985656	466.45	20.00	486.45
8	37.163914	-87.988896	461.37	20.00	481.37
9	37.163966	-87.990441	466.93	20.00	486.93
10	37.169443	-88.000651	474.96	20.00	494.96
11	37.170811	-88.000759	487.00	20.00	507.00

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169375	-87.989257	513.51	20.00	533.51
2	37.168742	-87.987712	494.91	20.00	514.91
3	37.168810	-87.982090	487.75	20.00	507.75
4	37.169785	-87.982069	501.67	20.00	521.67
5	37.171050	-87.974902	489.24	20.00	509.24
6	37.171050	-87.972499	476.79	20.00	496.79
7	37.168947	-87.972821	478.18	20.00	498.18
8	37.165784	-87.982760	473.19	20.00	493.19
9	37.165699	-87.984159	482.70	20.00	502.70
10	37.168555	-87.990661	488.12	20.00	508.13
11	37.169495	-87.990661	507.72	20.00	527.72

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.165689	-87.981759	468.95	20.00	488.95
2	37.167728	-87.974539	479.62	20.00	499.62
3	37.166847	-87.974260	488.47	20.00	508.47
4	37.166445	-87.973198	476.23	20.00	496.23
5	37.162928	-87.973679	465.27	20.00	485.27
6	37.161979	-87.974741	465.48	20.00	485.48
7	37.162005	-87.976844	487.94	20.00	507.94
8	37.165021	-87.978960	472.59	20.00	492.59
9	37.164995	-87.980719	472.96	20.00	492.96
10	37.164559	-87.980762	475.94	20.00	495.94
11	37.164465	-87.981824	472.61	20.00	492.61

Route Receptors

Name: Coleman Crider Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174988	-87.969214	551.26	6.00	557.26
2	37.175046	-87.968742	553.27	6.00	559.27
3	37.175398	-87.966949	524.83	6.00	530.83
4	37.175653	-87.965463	515.01	6.00	521.01
5	37.175843	-87.964479	508.41	6.00	514.41
6	37.175913	-87.963889	503.65	6.00	509.65
7	37.175918	-87.963577	500.76	6.00	506.76
8	37.175819	-87.963084	500.99	6.00	506.99
9	37.175681	-87.962156	499.41	6.00	505.41
10	37.175648	-87.961449	500.58	6.00	506.58
11	37.175723	-87.961052	498.75	6.00	504.75
12	37.175973	-87.960556	498.57	6.00	504.57
13	37.176386	-87.960116	502.58	6.00	508.58
14	37.176914	-87.959722	493.71	6.00	499.71
15	37.177162	-87.959480	489.10	6.00	495.10
16	37.177377	-87.959295	481.29	6.00	487.29
17	37.177798	-87.958864	474.72	6.00	480.72
18	37.178420	-87.958247	468.90	6.00	474.90
19	37.178841	-87.957815	469.40	6.00	475.40
20	37.179700	-87.956922	476.54	6.00	482.54
21	37.179618	-87.954528	486.14	6.00	492.14
22	37.179977	-87.953411	481.47	6.00	487.47
23	37.180590	-87.952134	464.66	6.00	470.66
24	37.181242	-87.950862	458.72	6.00	464.72
25	37.182327	-87.949157	455.01	6.00	461.01
26	37.182926	-87.944723	431.46	6.00	437.46
27	37.183635	-87.942236	441.87	6.00	447.87
28	37.183808	-87.942049	447.27	6.00	453.27
29	37.184148	-87.941866	450.58	6.00	456.58
30	37.184832	-87.941679	431.60	6.00	437.60
31	37.186155	-87.941566	425.73	6.00	431.73
32	37.186422	-87.941228	428.00	6.00	434.00
33	37.186649	-87.941024	428.10	6.00	434.10
34	37.187711	-87.940449	452.24	6.00	458.24

Name: Dalton Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174978	-88.008450	520.73	6.00	526.73
2	37.175722	-88.006760	519.24	6.00	525.24
3	37.176577	-88.005285	524.14	6.00	530.14
4	37.176701	-88.004711	525.48	6.00	531.48
5	37.176927	-88.003885	532.00	6.00	538.00
6	37.176876	-88.001975	592.23	6.00	598.23
7	37.177513	-88.000162	624.48	6.00	630.48
8	37.178244	-87.999148	656.77	6.00	662.77
9	37.178988	-87.998603	693.63	6.00	699.63
10	37.179936	-87.998016	708.11	6.00	714.11

Name: Goodsprings Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.157570	-87.974522	463.20	6.00	469.20
2	37.158617	-87.972569	458.04	6.00	464.04
3	37.158805	-87.972462	459.65	6.00	465.65
4	37.159316	-87.972542	466.35	6.00	472.35
5	37.159844	-87.972644	472.03	6.00	478.03
6	37.160840	-87.972848	471.41	6.00	477.41
7	37.161862	-87.973052	467.94	6.00	473.94
8	37.162773	-87.972993	470.92	6.00	476.92
9	37.164217	-87.972918	468.11	6.00	474.11
10	37.165702	-87.972871	470.46	6.00	476.46
11	37.167078	-87.972833	473.93	6.00	479.93
12	37.167706	-87.972804	474.39	6.00	480.39
13	37.168326	-87.972763	475.69	6.00	481.69
14	37.168822	-87.972565	476.24	6.00	482.24
15	37.169656	-87.972216	477.33	6.00	483.33
16	37.170028	-87.972138	479.29	6.00	485.29
17	37.170365	-87.972103	478.87	6.00	484.87
18	37.170831	-87.971991	478.68	6.00	484.68
19	37.171410	-87.971642	483.45	6.00	489.45
20	37.171990	-87.971272	491.67	6.00	497.67
21	37.173101	-87.970521	508.14	6.00	514.14
22	37.173917	-87.969990	529.66	6.00	535.66
23	37.174862	-87.969271	548.17	6.00	554.17
24	37.176063	-87.968949	574.93	6.00	580.93
25	37.176555	-87.968810	584.21	6.00	590.21

Name: Grey Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.167000	-87.972802	474.32	6.00	480.32
2	37.166606	-87.968747	486.48	6.00	492.48
3	37.165221	-87.968876	479.06	6.00	485.06
4	37.164332	-87.956216	543.31	6.00	549.31
5	37.168607	-87.953523	532.09	6.00	538.09
6	37.172369	-87.950916	493.22	6.00	499.22

Name: Marion Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.179023	-88.013394	492.84	6.00	498.84
2	37.174923	-88.008413	521.38	6.00	527.38
3	37.171084	-88.003746	530.86	6.00	536.86
4	37.170054	-88.002115	497.31	6.00	503.31
5	37.169045	-88.000308	474.91	6.00	480.91
6	37.166074	-87.995029	465.64	6.00	471.64
7	37.163308	-87.989600	457.21	6.00	463.21
8	37.161761	-87.984847	470.35	6.00	476.35
9	37.160923	-87.982353	475.94	6.00	481.94
10	37.160205	-87.979901	473.82	6.00	479.82
11	37.159568	-87.977994	468.47	6.00	474.47
12	37.159042	-87.976774	464.82	6.00	470.82
13	37.158204	-87.975352	461.23	6.00	467.23
14	37.157321	-87.974263	462.91	6.00	468.91
15	37.156079	-87.973110	463.83	6.00	469.83
16	37.152492	-87.969602	488.18	6.00	494.18
17	37.151603	-87.968709	495.56	6.00	501.56
18	37.150889	-87.967907	490.24	6.00	496.24
19	37.150444	-87.967126	493.40	6.00	499.40
20	37.150132	-87.966458	494.76	6.00	500.76
21	37.149431	-87.964774	485.99	6.00	491.99
22	37.149260	-87.963765	490.35	6.00	496.35
23	37.149366	-87.962928	489.29	6.00	495.29
24	37.150729	-87.958390	484.35	6.00	490.35
25	37.150738	-87.957732	484.18	6.00	490.18
26	37.150680	-87.957095	486.56	6.00	492.56
27	37.149895	-87.955220	510.73	6.00	516.73
28	37.146975	-87.949045	511.64	6.00	517.64

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	37.161000	-87.981100	486.70	6.00
OP 2	2	37.160900	-87.980400	492.00	6.00
OP 3	3	37.157900	-87.974400	469.06	6.00
OP 4	4	37.157500	-87.974200	468.80	6.00
OP 5	5	37.157700	-87.973900	470.02	6.00
OP 6	6	37.157900	-87.973600	466.19	6.00
OP 7	7	37.158100	-87.973900	464.87	6.00
OP 8	8	37.156900	-87.974700	472.46	6.00
OP 9	9	37.156600	-87.975600	474.63	6.00
OP 10	10	37.156700	-87.976400	465.77	6.00
OP 11	11	37.157100	-87.974900	472.73	6.00
OP 12	12	37.165000	-88.005500	484.44	6.00
OP 13	13	37.164800	-88.003900	480.93	6.00
OP 14	14	37.164400	-88.003200	478.43	6.00
OP 15	15	37.155600	-87.971500	489.76	6.00
OP 16	16	37.156100	-87.972200	477.95	6.00
OP 17	17	37.158000	-87.973100	467.54	6.00
OP 18	18	37.158200	-87.972900	465.85	6.00
OP 19	19	37.160200	-87.972200	475.89	6.00
OP 20	20	37.162900	-87.986600	479.12	6.00
OP 21	21	37.164200	-87.992600	458.49	6.00
OP 22	22	37.164900	-87.994100	469.09	6.00
OP 23	23	37.170400	-88.003300	522.11	6.00
OP 24	24	37.149600	-87.959700	487.95	6.00
OP 25	25	37.149000	-87.960600	492.34	6.00
OP 26	26	37.149400	-87.961500	493.50	6.00
OP 27	27	37.150300	-87.961200	499.10	6.00
OP 28	28	37.150000	-87.962000	503.59	6.00
OP 29	29	37.148900	-87.962700	493.98	6.00
OP 30	30	37.163500	-87.995400	475.55	6.00
OP 31	31	37.157400	-87.975400	467.37	6.00
OP 32	32	37.155000	-87.972800	475.91	6.00
OP 33	33	37.164400	-87.960200	510.03	6.00
OP 34	34	37.172000	-87.970000	519.07	6.00
OP 35	35	37.170900	-87.982400	533.37	6.00
OP 36	36	37.177000	-87.993500	718.16	6.00
OP 37	37	37.175000	-88.009100	521.67	6.00
OP 38	38	37.178800	-88.003800	565.94	6.00
OP 39	39	37.166600	-87.961300	505.68	6.00
OP 40	40	37.165600	-87.956400	555.80	6.00

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 1 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 1 and Dalton Road

Receptor type: Route

No glare found

PV array 1 and Goodsprings Road

Receptor type: Route

No glare found

PV array 1 and Grey Road

Receptor type: Route

No glare found

PV array 1 and Marion Road

Receptor type: Route

No glare found

PV array 1 and OP 1

Receptor type: Observation Point

No glare found

PV array 1 and OP 2

Receptor type: Observation Point

No glare found

PV array 1 and OP 3

Receptor type: Observation Point

No glare found

PV array 1 and OP 4

Receptor type: Observation Point

No glare found

PV array 1 and OP 5

Receptor type: Observation Point

No glare found

PV array 1 and OP 6

Receptor type: Observation Point

No glare found

PV array 1 and OP 7

Receptor type: Observation Point
No glare found

PV array 1 and OP 8

Receptor type: Observation Point
No glare found

PV array 1 and OP 9

Receptor type: Observation Point
No glare found

PV array 1 and OP 10

Receptor type: Observation Point
No glare found

PV array 1 and OP 11

Receptor type: Observation Point
No glare found

PV array 1 and OP 12

Receptor type: Observation Point
No glare found

PV array 1 and OP 13

Receptor type: Observation Point
No glare found

PV array 1 and OP 14

Receptor type: Observation Point
No glare found

PV array 1 and OP 15

Receptor type: Observation Point
No glare found

PV array 1 and OP 16

Receptor type: Observation Point
No glare found

PV array 1 and OP 17

Receptor type: Observation Point
No glare found

PV array 1 and OP 18

Receptor type: Observation Point
No glare found

PV array 1 and OP 19

Receptor type: Observation Point
No glare found

PV array 1 and OP 20

Receptor type: Observation Point
No glare found

PV array 1 and OP 21

Receptor type: Observation Point
No glare found

PV array 1 and OP 22

Receptor type: Observation Point
No glare found

PV array 1 and OP 23

Receptor type: Observation Point
No glare found

PV array 1 and OP 24

Receptor type: Observation Point
No glare found

PV array 1 and OP 25

Receptor type: Observation Point
No glare found

PV array 1 and OP 26

Receptor type: Observation Point
No glare found

PV array 1 and OP 27

Receptor type: Observation Point
No glare found

PV array 1 and OP 28

Receptor type: Observation Point
No glare found

PV array 1 and OP 29

Receptor type: Observation Point
No glare found

PV array 1 and OP 30

Receptor type: Observation Point
No glare found

PV array 1 and OP 31

Receptor type: Observation Point
No glare found

PV array 1 and OP 32

Receptor type: Observation Point
No glare found

PV array 1 and OP 33

Receptor type: Observation Point
No glare found

PV array 1 and OP 34

Receptor type: Observation Point
No glare found

PV array 1 and OP 35

Receptor type: Observation Point
No glare found

PV array 1 and OP 36

Receptor type: Observation Point
No glare found

PV array 1 and OP 37

Receptor type: Observation Point
No glare found

PV array 1 and OP 38

Receptor type: Observation Point
No glare found

PV array 1 and OP 39

Receptor type: Observation Point
No glare found

PV array 1 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 10 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 10 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 10 and Dalton Road

Receptor type: Route

No glare found

PV array 10 and Goodsprings Road

Receptor type: Route

No glare found

PV array 10 and Grey Road

Receptor type: Route

No glare found

PV array 10 and Marion Road

Receptor type: Route

No glare found

PV array 10 and OP 1

Receptor type: Observation Point

No glare found

PV array 10 and OP 2

Receptor type: Observation Point

No glare found

PV array 10 and OP 3

Receptor type: Observation Point

No glare found

PV array 10 and OP 4

Receptor type: Observation Point

No glare found

PV array 10 and OP 5

Receptor type: Observation Point

No glare found

PV array 10 and OP 6

Receptor type: Observation Point

No glare found

PV array 10 and OP 7

Receptor type: Observation Point

No glare found

PV array 10 and OP 8

Receptor type: Observation Point

No glare found

PV array 10 and OP 9

Receptor type: Observation Point
No glare found

PV array 10 and OP 10

Receptor type: Observation Point
No glare found

PV array 10 and OP 11

Receptor type: Observation Point
No glare found

PV array 10 and OP 12

Receptor type: Observation Point
No glare found

PV array 10 and OP 13

Receptor type: Observation Point
No glare found

PV array 10 and OP 14

Receptor type: Observation Point
No glare found

PV array 10 and OP 15

Receptor type: Observation Point
No glare found

PV array 10 and OP 16

Receptor type: Observation Point
No glare found

PV array 10 and OP 17

Receptor type: Observation Point
No glare found

PV array 10 and OP 18

Receptor type: Observation Point
No glare found

PV array 10 and OP 19

Receptor type: Observation Point
No glare found

PV array 10 and OP 20

Receptor type: Observation Point
No glare found

PV array 10 and OP 21

Receptor type: Observation Point
No glare found

PV array 10 and OP 22

Receptor type: Observation Point
No glare found

PV array 10 and OP 23

Receptor type: Observation Point
No glare found

PV array 10 and OP 24

Receptor type: Observation Point
No glare found

PV array 10 and OP 25

Receptor type: Observation Point
No glare found

PV array 10 and OP 26

Receptor type: Observation Point
No glare found

PV array 10 and OP 27

Receptor type: Observation Point
No glare found

PV array 10 and OP 28

Receptor type: Observation Point
No glare found

PV array 10 and OP 29

Receptor type: Observation Point
No glare found

PV array 10 and OP 30

Receptor type: Observation Point
No glare found

PV array 10 and OP 31

Receptor type: Observation Point
No glare found

PV array 10 and OP 32

Receptor type: Observation Point
No glare found

PV array 10 and OP 33

Receptor type: Observation Point
No glare found

PV array 10 and OP 34

Receptor type: Observation Point
No glare found

PV array 10 and OP 35

Receptor type: Observation Point
No glare found

PV array 10 and OP 36

Receptor type: Observation Point
No glare found

PV array 10 and OP 37

Receptor type: Observation Point
No glare found

PV array 10 and OP 38

Receptor type: Observation Point
No glare found

PV array 10 and OP 39

Receptor type: Observation Point
No glare found

PV array 10 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 11 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 11 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 11 and Dalton Road

Receptor type: Route

No glare found

PV array 11 and Goodsprings Road

Receptor type: Route

No glare found

PV array 11 and Grey Road

Receptor type: Route

No glare found

PV array 11 and Marion Road

Receptor type: Route

No glare found

PV array 11 and OP 1

Receptor type: Observation Point

No glare found

PV array 11 and OP 2

Receptor type: Observation Point

No glare found

PV array 11 and OP 3

Receptor type: Observation Point

No glare found

PV array 11 and OP 4

Receptor type: Observation Point

No glare found

PV array 11 and OP 5

Receptor type: Observation Point

No glare found

PV array 11 and OP 6

Receptor type: Observation Point

No glare found

PV array 11 and OP 7

Receptor type: Observation Point

No glare found

PV array 11 and OP 8

Receptor type: Observation Point

No glare found

PV array 11 and OP 9

Receptor type: Observation Point
No glare found

PV array 11 and OP 10

Receptor type: Observation Point
No glare found

PV array 11 and OP 11

Receptor type: Observation Point
No glare found

PV array 11 and OP 12

Receptor type: Observation Point
No glare found

PV array 11 and OP 13

Receptor type: Observation Point
No glare found

PV array 11 and OP 14

Receptor type: Observation Point
No glare found

PV array 11 and OP 15

Receptor type: Observation Point
No glare found

PV array 11 and OP 16

Receptor type: Observation Point
No glare found

PV array 11 and OP 17

Receptor type: Observation Point
No glare found

PV array 11 and OP 18

Receptor type: Observation Point
No glare found

PV array 11 and OP 19

Receptor type: Observation Point
No glare found

PV array 11 and OP 20

Receptor type: Observation Point
No glare found

PV array 11 and OP 21

Receptor type: Observation Point
No glare found

PV array 11 and OP 22

Receptor type: Observation Point
No glare found

PV array 11 and OP 23

Receptor type: Observation Point
No glare found

PV array 11 and OP 24

Receptor type: Observation Point
No glare found

PV array 11 and OP 25

Receptor type: Observation Point
No glare found

PV array 11 and OP 26

Receptor type: Observation Point
No glare found

PV array 11 and OP 27

Receptor type: Observation Point
No glare found

PV array 11 and OP 28

Receptor type: Observation Point
No glare found

PV array 11 and OP 29

Receptor type: Observation Point
No glare found

PV array 11 and OP 30

Receptor type: Observation Point
No glare found

PV array 11 and OP 31

Receptor type: Observation Point
No glare found

PV array 11 and OP 32

Receptor type: Observation Point
No glare found

PV array 11 and OP 33

Receptor type: Observation Point
No glare found

PV array 11 and OP 34

Receptor type: Observation Point
No glare found

PV array 11 and OP 35

Receptor type: Observation Point
No glare found

PV array 11 and OP 36

Receptor type: Observation Point
No glare found

PV array 11 and OP 37

Receptor type: Observation Point
No glare found

PV array 11 and OP 38

Receptor type: Observation Point
No glare found

PV array 11 and OP 39

Receptor type: Observation Point
No glare found

PV array 11 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 12 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 12 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 12 and Dalton Road

Receptor type: Route

No glare found

PV array 12 and Goodsprings Road

Receptor type: Route

No glare found

PV array 12 and Grey Road

Receptor type: Route

No glare found

PV array 12 and Marion Road

Receptor type: Route

No glare found

PV array 12 and OP 1

Receptor type: Observation Point

No glare found

PV array 12 and OP 2

Receptor type: Observation Point

No glare found

PV array 12 and OP 3

Receptor type: Observation Point

No glare found

PV array 12 and OP 4

Receptor type: Observation Point

No glare found

PV array 12 and OP 5

Receptor type: Observation Point

No glare found

PV array 12 and OP 6

Receptor type: Observation Point

No glare found

PV array 12 and OP 7

Receptor type: Observation Point

No glare found

PV array 12 and OP 8

Receptor type: Observation Point

No glare found

PV array 12 and OP 9

Receptor type: Observation Point
No glare found

PV array 12 and OP 10

Receptor type: Observation Point
No glare found

PV array 12 and OP 11

Receptor type: Observation Point
No glare found

PV array 12 and OP 12

Receptor type: Observation Point
No glare found

PV array 12 and OP 13

Receptor type: Observation Point
No glare found

PV array 12 and OP 14

Receptor type: Observation Point
No glare found

PV array 12 and OP 15

Receptor type: Observation Point
No glare found

PV array 12 and OP 16

Receptor type: Observation Point
No glare found

PV array 12 and OP 17

Receptor type: Observation Point
No glare found

PV array 12 and OP 18

Receptor type: Observation Point
No glare found

PV array 12 and OP 19

Receptor type: Observation Point
No glare found

PV array 12 and OP 20

Receptor type: Observation Point
No glare found

PV array 12 and OP 21

Receptor type: Observation Point
No glare found

PV array 12 and OP 22

Receptor type: Observation Point
No glare found

PV array 12 and OP 23

Receptor type: Observation Point
No glare found

PV array 12 and OP 24

Receptor type: Observation Point
No glare found

PV array 12 and OP 25

Receptor type: Observation Point
No glare found

PV array 12 and OP 26

Receptor type: Observation Point
No glare found

PV array 12 and OP 27

Receptor type: Observation Point
No glare found

PV array 12 and OP 28

Receptor type: Observation Point
No glare found

PV array 12 and OP 29

Receptor type: Observation Point
No glare found

PV array 12 and OP 30

Receptor type: Observation Point
No glare found

PV array 12 and OP 31

Receptor type: Observation Point
No glare found

PV array 12 and OP 32

Receptor type: Observation Point
No glare found

PV array 12 and OP 33

Receptor type: Observation Point
No glare found

PV array 12 and OP 34

Receptor type: Observation Point
No glare found

PV array 12 and OP 35

Receptor type: Observation Point
No glare found

PV array 12 and OP 36

Receptor type: Observation Point
No glare found

PV array 12 and OP 37

Receptor type: Observation Point
No glare found

PV array 12 and OP 38

Receptor type: Observation Point
No glare found

PV array 12 and OP 39

Receptor type: Observation Point
No glare found

PV array 12 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 13 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 13 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 13 and Dalton Road

Receptor type: Route

No glare found

PV array 13 and Goodsprings Road

Receptor type: Route

No glare found

PV array 13 and Grey Road

Receptor type: Route

No glare found

PV array 13 and Marion Road

Receptor type: Route

No glare found

PV array 13 and OP 1

Receptor type: Observation Point

No glare found

PV array 13 and OP 2

Receptor type: Observation Point

No glare found

PV array 13 and OP 3

Receptor type: Observation Point

No glare found

PV array 13 and OP 4

Receptor type: Observation Point

No glare found

PV array 13 and OP 5

Receptor type: Observation Point

No glare found

PV array 13 and OP 6

Receptor type: Observation Point

No glare found

PV array 13 and OP 7

Receptor type: Observation Point

No glare found

PV array 13 and OP 8

Receptor type: Observation Point

No glare found

PV array 13 and OP 9

Receptor type: Observation Point
No glare found

PV array 13 and OP 10

Receptor type: Observation Point
No glare found

PV array 13 and OP 11

Receptor type: Observation Point
No glare found

PV array 13 and OP 12

Receptor type: Observation Point
No glare found

PV array 13 and OP 13

Receptor type: Observation Point
No glare found

PV array 13 and OP 14

Receptor type: Observation Point
No glare found

PV array 13 and OP 15

Receptor type: Observation Point
No glare found

PV array 13 and OP 16

Receptor type: Observation Point
No glare found

PV array 13 and OP 17

Receptor type: Observation Point
No glare found

PV array 13 and OP 18

Receptor type: Observation Point
No glare found

PV array 13 and OP 19

Receptor type: Observation Point
No glare found

PV array 13 and OP 20

Receptor type: Observation Point
No glare found

PV array 13 and OP 21

Receptor type: Observation Point
No glare found

PV array 13 and OP 22

Receptor type: Observation Point
No glare found

PV array 13 and OP 23

Receptor type: Observation Point
No glare found

PV array 13 and OP 24

Receptor type: Observation Point
No glare found

PV array 13 and OP 25

Receptor type: Observation Point
No glare found

PV array 13 and OP 26

Receptor type: Observation Point
No glare found

PV array 13 and OP 27

Receptor type: Observation Point
No glare found

PV array 13 and OP 28

Receptor type: Observation Point
No glare found

PV array 13 and OP 29

Receptor type: Observation Point
No glare found

PV array 13 and OP 30

Receptor type: Observation Point
No glare found

PV array 13 and OP 31

Receptor type: Observation Point
No glare found

PV array 13 and OP 32

Receptor type: Observation Point
No glare found

PV array 13 and OP 33

Receptor type: Observation Point
No glare found

PV array 13 and OP 34

Receptor type: Observation Point
No glare found

PV array 13 and OP 35

Receptor type: Observation Point
No glare found

PV array 13 and OP 36

Receptor type: Observation Point
No glare found

PV array 13 and OP 37

Receptor type: Observation Point
No glare found

PV array 13 and OP 38

Receptor type: Observation Point
No glare found

PV array 13 and OP 39

Receptor type: Observation Point
No glare found

PV array 13 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 14 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 14 and Coleman Crider Road

Receptor type: Route
No glare found

PV array 14 and Dalton Road

Receptor type: Route
No glare found

PV array 14 and Goodsprings Road

Receptor type: Route
No glare found

PV array 14 and Grey Road

Receptor type: Route
No glare found

PV array 14 and Marion Road

Receptor type: Route
No glare found

PV array 14 and OP 1

Receptor type: Observation Point
No glare found

PV array 14 and OP 2

Receptor type: Observation Point
No glare found

PV array 14 and OP 3

Receptor type: Observation Point
No glare found

PV array 14 and OP 4

Receptor type: Observation Point
No glare found

PV array 14 and OP 5

Receptor type: Observation Point
No glare found

PV array 14 and OP 6

Receptor type: Observation Point
No glare found

PV array 14 and OP 7

Receptor type: Observation Point
No glare found

PV array 14 and OP 8

Receptor type: Observation Point
No glare found

PV array 14 and OP 9

Receptor type: Observation Point
No glare found

PV array 14 and OP 10

Receptor type: Observation Point
No glare found

PV array 14 and OP 11

Receptor type: Observation Point
No glare found

PV array 14 and OP 12

Receptor type: Observation Point
No glare found

PV array 14 and OP 13

Receptor type: Observation Point
No glare found

PV array 14 and OP 14

Receptor type: Observation Point
No glare found

PV array 14 and OP 15

Receptor type: Observation Point
No glare found

PV array 14 and OP 16

Receptor type: Observation Point
No glare found

PV array 14 and OP 17

Receptor type: Observation Point
No glare found

PV array 14 and OP 18

Receptor type: Observation Point
No glare found

PV array 14 and OP 19

Receptor type: Observation Point
No glare found

PV array 14 and OP 20

Receptor type: Observation Point
No glare found

PV array 14 and OP 21

Receptor type: Observation Point
No glare found

PV array 14 and OP 22

Receptor type: Observation Point
No glare found

PV array 14 and OP 23

Receptor type: Observation Point
No glare found

PV array 14 and OP 24

Receptor type: Observation Point
No glare found

PV array 14 and OP 25

Receptor type: Observation Point
No glare found

PV array 14 and OP 26

Receptor type: Observation Point
No glare found

PV array 14 and OP 27

Receptor type: Observation Point
No glare found

PV array 14 and OP 28

Receptor type: Observation Point
No glare found

PV array 14 and OP 29

Receptor type: Observation Point
No glare found

PV array 14 and OP 30

Receptor type: Observation Point
No glare found

PV array 14 and OP 31

Receptor type: Observation Point
No glare found

PV array 14 and OP 32

Receptor type: Observation Point
No glare found

PV array 14 and OP 33

Receptor type: Observation Point
No glare found

PV array 14 and OP 34

Receptor type: Observation Point
No glare found

PV array 14 and OP 35

Receptor type: Observation Point
No glare found

PV array 14 and OP 36

Receptor type: Observation Point
No glare found

PV array 14 and OP 37

Receptor type: Observation Point
No glare found

PV array 14 and OP 38

Receptor type: Observation Point
No glare found

PV array 14 and OP 39

Receptor type: Observation Point
No glare found

PV array 14 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 15 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 15 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 15 and Dalton Road

Receptor type: Route

No glare found

PV array 15 and Goodsprings Road

Receptor type: Route

No glare found

PV array 15 and Grey Road

Receptor type: Route

No glare found

PV array 15 and Marion Road

Receptor type: Route

No glare found

PV array 15 and OP 1

Receptor type: Observation Point

No glare found

PV array 15 and OP 2

Receptor type: Observation Point

No glare found

PV array 15 and OP 3

Receptor type: Observation Point

No glare found

PV array 15 and OP 4

Receptor type: Observation Point

No glare found

PV array 15 and OP 5

Receptor type: Observation Point

No glare found

PV array 15 and OP 6

Receptor type: Observation Point

No glare found

PV array 15 and OP 7

Receptor type: Observation Point

No glare found

PV array 15 and OP 8

Receptor type: Observation Point

No glare found

PV array 15 and OP 9

Receptor type: Observation Point
No glare found

PV array 15 and OP 10

Receptor type: Observation Point
No glare found

PV array 15 and OP 11

Receptor type: Observation Point
No glare found

PV array 15 and OP 12

Receptor type: Observation Point
No glare found

PV array 15 and OP 13

Receptor type: Observation Point
No glare found

PV array 15 and OP 14

Receptor type: Observation Point
No glare found

PV array 15 and OP 15

Receptor type: Observation Point
No glare found

PV array 15 and OP 16

Receptor type: Observation Point
No glare found

PV array 15 and OP 17

Receptor type: Observation Point
No glare found

PV array 15 and OP 18

Receptor type: Observation Point
No glare found

PV array 15 and OP 19

Receptor type: Observation Point
No glare found

PV array 15 and OP 20

Receptor type: Observation Point
No glare found

PV array 15 and OP 21

Receptor type: Observation Point
No glare found

PV array 15 and OP 22

Receptor type: Observation Point
No glare found

PV array 15 and OP 23

Receptor type: Observation Point
No glare found

PV array 15 and OP 24

Receptor type: Observation Point
No glare found

PV array 15 and OP 25

Receptor type: Observation Point
No glare found

PV array 15 and OP 26

Receptor type: Observation Point
No glare found

PV array 15 and OP 27

Receptor type: Observation Point
No glare found

PV array 15 and OP 28

Receptor type: Observation Point
No glare found

PV array 15 and OP 29

Receptor type: Observation Point
No glare found

PV array 15 and OP 30

Receptor type: Observation Point
No glare found

PV array 15 and OP 31

Receptor type: Observation Point
No glare found

PV array 15 and OP 32

Receptor type: Observation Point
No glare found

PV array 15 and OP 33

Receptor type: Observation Point
No glare found

PV array 15 and OP 34

Receptor type: Observation Point
No glare found

PV array 15 and OP 35

Receptor type: Observation Point
No glare found

PV array 15 and OP 36

Receptor type: Observation Point
No glare found

PV array 15 and OP 37

Receptor type: Observation Point
No glare found

PV array 15 and OP 38

Receptor type: Observation Point
No glare found

PV array 15 and OP 39

Receptor type: Observation Point
No glare found

PV array 15 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 16 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 16 and Dalton Road

Receptor type: Route

No glare found

PV array 16 and Goodsprings Road

Receptor type: Route

No glare found

PV array 16 and Grey Road

Receptor type: Route

No glare found

PV array 16 and Marion Road

Receptor type: Route

No glare found

PV array 16 and OP 1

Receptor type: Observation Point

No glare found

PV array 16 and OP 2

Receptor type: Observation Point

No glare found

PV array 16 and OP 3

Receptor type: Observation Point

No glare found

PV array 16 and OP 4

Receptor type: Observation Point

No glare found

PV array 16 and OP 5

Receptor type: Observation Point

No glare found

PV array 16 and OP 6

Receptor type: Observation Point

No glare found

PV array 16 and OP 7

Receptor type: Observation Point

No glare found

PV array 16 and OP 8

Receptor type: Observation Point

No glare found

PV array 16 and OP 9

Receptor type: Observation Point
No glare found

PV array 16 and OP 10

Receptor type: Observation Point
No glare found

PV array 16 and OP 11

Receptor type: Observation Point
No glare found

PV array 16 and OP 12

Receptor type: Observation Point
No glare found

PV array 16 and OP 13

Receptor type: Observation Point
No glare found

PV array 16 and OP 14

Receptor type: Observation Point
No glare found

PV array 16 and OP 15

Receptor type: Observation Point
No glare found

PV array 16 and OP 16

Receptor type: Observation Point
No glare found

PV array 16 and OP 17

Receptor type: Observation Point
No glare found

PV array 16 and OP 18

Receptor type: Observation Point
No glare found

PV array 16 and OP 19

Receptor type: Observation Point
No glare found

PV array 16 and OP 20

Receptor type: Observation Point
No glare found

PV array 16 and OP 21

Receptor type: Observation Point
No glare found

PV array 16 and OP 22

Receptor type: Observation Point
No glare found

PV array 16 and OP 23

Receptor type: Observation Point
No glare found

PV array 16 and OP 24

Receptor type: Observation Point
No glare found

PV array 16 and OP 25

Receptor type: Observation Point
No glare found

PV array 16 and OP 26

Receptor type: Observation Point
No glare found

PV array 16 and OP 27

Receptor type: Observation Point
No glare found

PV array 16 and OP 28

Receptor type: Observation Point
No glare found

PV array 16 and OP 29

Receptor type: Observation Point
No glare found

PV array 16 and OP 30

Receptor type: Observation Point
No glare found

PV array 16 and OP 31

Receptor type: Observation Point
No glare found

PV array 16 and OP 32

Receptor type: Observation Point
No glare found

PV array 16 and OP 33

Receptor type: Observation Point
No glare found

PV array 16 and OP 34

Receptor type: Observation Point
No glare found

PV array 16 and OP 35

Receptor type: Observation Point
No glare found

PV array 16 and OP 36

Receptor type: Observation Point
No glare found

PV array 16 and OP 37

Receptor type: Observation Point
No glare found

PV array 16 and OP 38

Receptor type: Observation Point
No glare found

PV array 16 and OP 39

Receptor type: Observation Point
No glare found

PV array 16 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 17 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 17 and Dalton Road

Receptor type: Route

No glare found

PV array 17 and Goodsprings Road

Receptor type: Route

No glare found

PV array 17 and Grey Road

Receptor type: Route

No glare found

PV array 17 and Marion Road

Receptor type: Route

No glare found

PV array 17 and OP 1

Receptor type: Observation Point

No glare found

PV array 17 and OP 2

Receptor type: Observation Point

No glare found

PV array 17 and OP 3

Receptor type: Observation Point

No glare found

PV array 17 and OP 4

Receptor type: Observation Point

No glare found

PV array 17 and OP 5

Receptor type: Observation Point

No glare found

PV array 17 and OP 6

Receptor type: Observation Point

No glare found

PV array 17 and OP 7

Receptor type: Observation Point

No glare found

PV array 17 and OP 8

Receptor type: Observation Point

No glare found

PV array 17 and OP 9

Receptor type: Observation Point
No glare found

PV array 17 and OP 10

Receptor type: Observation Point
No glare found

PV array 17 and OP 11

Receptor type: Observation Point
No glare found

PV array 17 and OP 12

Receptor type: Observation Point
No glare found

PV array 17 and OP 13

Receptor type: Observation Point
No glare found

PV array 17 and OP 14

Receptor type: Observation Point
No glare found

PV array 17 and OP 15

Receptor type: Observation Point
No glare found

PV array 17 and OP 16

Receptor type: Observation Point
No glare found

PV array 17 and OP 17

Receptor type: Observation Point
No glare found

PV array 17 and OP 18

Receptor type: Observation Point
No glare found

PV array 17 and OP 19

Receptor type: Observation Point
No glare found

PV array 17 and OP 20

Receptor type: Observation Point
No glare found

PV array 17 and OP 21

Receptor type: Observation Point
No glare found

PV array 17 and OP 22

Receptor type: Observation Point
No glare found

PV array 17 and OP 23

Receptor type: Observation Point
No glare found

PV array 17 and OP 24

Receptor type: Observation Point
No glare found

PV array 17 and OP 25

Receptor type: Observation Point
No glare found

PV array 17 and OP 26

Receptor type: Observation Point
No glare found

PV array 17 and OP 27

Receptor type: Observation Point
No glare found

PV array 17 and OP 28

Receptor type: Observation Point
No glare found

PV array 17 and OP 29

Receptor type: Observation Point

No glare found

PV array 17 and OP 30

Receptor type: Observation Point

No glare found

PV array 17 and OP 31

Receptor type: Observation Point

No glare found

PV array 17 and OP 32

Receptor type: Observation Point

No glare found

PV array 17 and OP 33

Receptor type: Observation Point

No glare found

PV array 17 and OP 34

Receptor type: Observation Point

No glare found

PV array 17 and OP 35

Receptor type: Observation Point

No glare found

PV array 17 and OP 36

Receptor type: Observation Point

No glare found

PV array 17 and OP 37

Receptor type: Observation Point

No glare found

PV array 17 and OP 38

Receptor type: Observation Point

No glare found

PV array 17 and OP 39

Receptor type: Observation Point

No glare found

PV array 17 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 18 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 18 and Dalton Road

Receptor type: Route

No glare found

PV array 18 and Goodsprings Road

Receptor type: Route

No glare found

PV array 18 and Grey Road

Receptor type: Route

No glare found

PV array 18 and Marion Road

Receptor type: Route

No glare found

PV array 18 and OP 1

Receptor type: Observation Point

No glare found

PV array 18 and OP 2

Receptor type: Observation Point

No glare found

PV array 18 and OP 3

Receptor type: Observation Point

No glare found

PV array 18 and OP 4

Receptor type: Observation Point

No glare found

PV array 18 and OP 5

Receptor type: Observation Point

No glare found

PV array 18 and OP 6

Receptor type: Observation Point

No glare found

PV array 18 and OP 7

Receptor type: Observation Point

No glare found

PV array 18 and OP 8

Receptor type: Observation Point

No glare found

PV array 18 and OP 9

Receptor type: Observation Point
No glare found

PV array 18 and OP 10

Receptor type: Observation Point
No glare found

PV array 18 and OP 11

Receptor type: Observation Point
No glare found

PV array 18 and OP 12

Receptor type: Observation Point
No glare found

PV array 18 and OP 13

Receptor type: Observation Point
No glare found

PV array 18 and OP 14

Receptor type: Observation Point
No glare found

PV array 18 and OP 15

Receptor type: Observation Point
No glare found

PV array 18 and OP 16

Receptor type: Observation Point
No glare found

PV array 18 and OP 17

Receptor type: Observation Point
No glare found

PV array 18 and OP 18

Receptor type: Observation Point
No glare found

PV array 18 and OP 19

Receptor type: Observation Point
No glare found

PV array 18 and OP 20

Receptor type: Observation Point
No glare found

PV array 18 and OP 21

Receptor type: Observation Point
No glare found

PV array 18 and OP 22

Receptor type: Observation Point
No glare found

PV array 18 and OP 23

Receptor type: Observation Point
No glare found

PV array 18 and OP 24

Receptor type: Observation Point
No glare found

PV array 18 and OP 25

Receptor type: Observation Point
No glare found

PV array 18 and OP 26

Receptor type: Observation Point
No glare found

PV array 18 and OP 27

Receptor type: Observation Point
No glare found

PV array 18 and OP 28

Receptor type: Observation Point
No glare found

PV array 18 and OP 29

Receptor type: Observation Point
No glare found

PV array 18 and OP 30

Receptor type: Observation Point
No glare found

PV array 18 and OP 31

Receptor type: Observation Point
No glare found

PV array 18 and OP 32

Receptor type: Observation Point
No glare found

PV array 18 and OP 33

Receptor type: Observation Point
No glare found

PV array 18 and OP 34

Receptor type: Observation Point
No glare found

PV array 18 and OP 35

Receptor type: Observation Point
No glare found

PV array 18 and OP 36

Receptor type: Observation Point
No glare found

PV array 18 and OP 37

Receptor type: Observation Point
No glare found

PV array 18 and OP 38

Receptor type: Observation Point
No glare found

PV array 18 and OP 39

Receptor type: Observation Point
No glare found

PV array 18 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 2 and Coleman Crider Road

Receptor type: Route
No glare found

PV array 2 and Dalton Road

Receptor type: Route
No glare found

PV array 2 and Goodsprings Road

Receptor type: Route
No glare found

PV array 2 and Grey Road

Receptor type: Route
No glare found

PV array 2 and Marion Road

Receptor type: Route
No glare found

PV array 2 and OP 1

Receptor type: Observation Point
No glare found

PV array 2 and OP 2

Receptor type: Observation Point
No glare found

PV array 2 and OP 3

Receptor type: Observation Point
No glare found

PV array 2 and OP 4

Receptor type: Observation Point
No glare found

PV array 2 and OP 5

Receptor type: Observation Point
No glare found

PV array 2 and OP 6

Receptor type: Observation Point
No glare found

PV array 2 and OP 7

Receptor type: Observation Point
No glare found

PV array 2 and OP 8

Receptor type: Observation Point
No glare found

PV array 2 and OP 9

Receptor type: Observation Point
No glare found

PV array 2 and OP 10

Receptor type: Observation Point
No glare found

PV array 2 and OP 11

Receptor type: Observation Point
No glare found

PV array 2 and OP 12

Receptor type: Observation Point
No glare found

PV array 2 and OP 13

Receptor type: Observation Point
No glare found

PV array 2 and OP 14

Receptor type: Observation Point
No glare found

PV array 2 and OP 15

Receptor type: Observation Point
No glare found

PV array 2 and OP 16

Receptor type: Observation Point
No glare found

PV array 2 and OP 17

Receptor type: Observation Point
No glare found

PV array 2 and OP 18

Receptor type: Observation Point
No glare found

PV array 2 and OP 19

Receptor type: Observation Point
No glare found

PV array 2 and OP 20

Receptor type: Observation Point
No glare found

PV array 2 and OP 21

Receptor type: Observation Point
No glare found

PV array 2 and OP 22

Receptor type: Observation Point
No glare found

PV array 2 and OP 23

Receptor type: Observation Point
No glare found

PV array 2 and OP 24

Receptor type: Observation Point
No glare found

PV array 2 and OP 25

Receptor type: Observation Point
No glare found

PV array 2 and OP 26

Receptor type: Observation Point
No glare found

PV array 2 and OP 27

Receptor type: Observation Point
No glare found

PV array 2 and OP 28

Receptor type: Observation Point
No glare found

PV array 2 and OP 29

Receptor type: Observation Point

No glare found

PV array 2 and OP 30

Receptor type: Observation Point

No glare found

PV array 2 and OP 31

Receptor type: Observation Point

No glare found

PV array 2 and OP 32

Receptor type: Observation Point

No glare found

PV array 2 and OP 33

Receptor type: Observation Point

No glare found

PV array 2 and OP 34

Receptor type: Observation Point

No glare found

PV array 2 and OP 35

Receptor type: Observation Point

No glare found

PV array 2 and OP 36

Receptor type: Observation Point

No glare found

PV array 2 and OP 37

Receptor type: Observation Point

No glare found

PV array 2 and OP 38

Receptor type: Observation Point

No glare found

PV array 2 and OP 39

Receptor type: Observation Point

No glare found

PV array 2 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 3 and Coleman Crider Road

Receptor type: Route
No glare found

PV array 3 and Dalton Road

Receptor type: Route
No glare found

PV array 3 and Goodsprings Road

Receptor type: Route
No glare found

PV array 3 and Grey Road

Receptor type: Route
No glare found

PV array 3 and Marion Road

Receptor type: Route
No glare found

PV array 3 and OP 1

Receptor type: Observation Point
No glare found

PV array 3 and OP 2

Receptor type: Observation Point
No glare found

PV array 3 and OP 3

Receptor type: Observation Point
No glare found

PV array 3 and OP 4

Receptor type: Observation Point
No glare found

PV array 3 and OP 5

Receptor type: Observation Point
No glare found

PV array 3 and OP 6

Receptor type: Observation Point
No glare found

PV array 3 and OP 7

Receptor type: Observation Point
No glare found

PV array 3 and OP 8

Receptor type: Observation Point
No glare found

PV array 3 and OP 9

Receptor type: Observation Point
No glare found

PV array 3 and OP 10

Receptor type: Observation Point
No glare found

PV array 3 and OP 11

Receptor type: Observation Point
No glare found

PV array 3 and OP 12

Receptor type: Observation Point
No glare found

PV array 3 and OP 13

Receptor type: Observation Point
No glare found

PV array 3 and OP 14

Receptor type: Observation Point
No glare found

PV array 3 and OP 15

Receptor type: Observation Point
No glare found

PV array 3 and OP 16

Receptor type: Observation Point
No glare found

PV array 3 and OP 17

Receptor type: Observation Point
No glare found

PV array 3 and OP 18

Receptor type: Observation Point
No glare found

PV array 3 and OP 19

Receptor type: Observation Point
No glare found

PV array 3 and OP 20

Receptor type: Observation Point
No glare found

PV array 3 and OP 21

Receptor type: Observation Point
No glare found

PV array 3 and OP 22

Receptor type: Observation Point
No glare found

PV array 3 and OP 23

Receptor type: Observation Point
No glare found

PV array 3 and OP 24

Receptor type: Observation Point
No glare found

PV array 3 and OP 25

Receptor type: Observation Point
No glare found

PV array 3 and OP 26

Receptor type: Observation Point
No glare found

PV array 3 and OP 27

Receptor type: Observation Point
No glare found

PV array 3 and OP 28

Receptor type: Observation Point
No glare found

PV array 3 and OP 29

Receptor type: Observation Point
No glare found

PV array 3 and OP 30

Receptor type: Observation Point
No glare found

PV array 3 and OP 31

Receptor type: Observation Point
No glare found

PV array 3 and OP 32

Receptor type: Observation Point
No glare found

PV array 3 and OP 33

Receptor type: Observation Point
No glare found

PV array 3 and OP 34

Receptor type: Observation Point
No glare found

PV array 3 and OP 35

Receptor type: Observation Point
No glare found

PV array 3 and OP 36

Receptor type: Observation Point
No glare found

PV array 3 and OP 37

Receptor type: Observation Point
No glare found

PV array 3 and OP 38

Receptor type: Observation Point
No glare found

PV array 3 and OP 39

Receptor type: Observation Point
No glare found

PV array 3 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 4 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 4 and Dalton Road

Receptor type: Route

No glare found

PV array 4 and Goodsprings Road

Receptor type: Route

No glare found

PV array 4 and Grey Road

Receptor type: Route

No glare found

PV array 4 and Marion Road

Receptor type: Route

No glare found

PV array 4 and OP 1

Receptor type: Observation Point

No glare found

PV array 4 and OP 2

Receptor type: Observation Point

No glare found

PV array 4 and OP 3

Receptor type: Observation Point

No glare found

PV array 4 and OP 4

Receptor type: Observation Point

No glare found

PV array 4 and OP 5

Receptor type: Observation Point

No glare found

PV array 4 and OP 6

Receptor type: Observation Point

No glare found

PV array 4 and OP 7

Receptor type: Observation Point

No glare found

PV array 4 and OP 8

Receptor type: Observation Point

No glare found

PV array 4 and OP 9

Receptor type: Observation Point
No glare found

PV array 4 and OP 10

Receptor type: Observation Point
No glare found

PV array 4 and OP 11

Receptor type: Observation Point
No glare found

PV array 4 and OP 12

Receptor type: Observation Point
No glare found

PV array 4 and OP 13

Receptor type: Observation Point
No glare found

PV array 4 and OP 14

Receptor type: Observation Point
No glare found

PV array 4 and OP 15

Receptor type: Observation Point
No glare found

PV array 4 and OP 16

Receptor type: Observation Point
No glare found

PV array 4 and OP 17

Receptor type: Observation Point
No glare found

PV array 4 and OP 18

Receptor type: Observation Point
No glare found

PV array 4 and OP 19

Receptor type: Observation Point
No glare found

PV array 4 and OP 20

Receptor type: Observation Point
No glare found

PV array 4 and OP 21

Receptor type: Observation Point
No glare found

PV array 4 and OP 22

Receptor type: Observation Point
No glare found

PV array 4 and OP 23

Receptor type: Observation Point
No glare found

PV array 4 and OP 24

Receptor type: Observation Point
No glare found

PV array 4 and OP 25

Receptor type: Observation Point
No glare found

PV array 4 and OP 26

Receptor type: Observation Point
No glare found

PV array 4 and OP 27

Receptor type: Observation Point
No glare found

PV array 4 and OP 28

Receptor type: Observation Point
No glare found

PV array 4 and OP 29

Receptor type: Observation Point
No glare found

PV array 4 and OP 30

Receptor type: Observation Point
No glare found

PV array 4 and OP 31

Receptor type: Observation Point
No glare found

PV array 4 and OP 32

Receptor type: Observation Point
No glare found

PV array 4 and OP 33

Receptor type: Observation Point
No glare found

PV array 4 and OP 34

Receptor type: Observation Point
No glare found

PV array 4 and OP 35

Receptor type: Observation Point
No glare found

PV array 4 and OP 36

Receptor type: Observation Point
No glare found

PV array 4 and OP 37

Receptor type: Observation Point
No glare found

PV array 4 and OP 38

Receptor type: Observation Point
No glare found

PV array 4 and OP 39

Receptor type: Observation Point
No glare found

PV array 4 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 5 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 5 and Dalton Road

Receptor type: Route

No glare found

PV array 5 and Goodsprings Road

Receptor type: Route

No glare found

PV array 5 and Grey Road

Receptor type: Route

No glare found

PV array 5 and Marion Road

Receptor type: Route

No glare found

PV array 5 and OP 1

Receptor type: Observation Point

No glare found

PV array 5 and OP 2

Receptor type: Observation Point

No glare found

PV array 5 and OP 3

Receptor type: Observation Point

No glare found

PV array 5 and OP 4

Receptor type: Observation Point

No glare found

PV array 5 and OP 5

Receptor type: Observation Point

No glare found

PV array 5 and OP 6

Receptor type: Observation Point

No glare found

PV array 5 and OP 7

Receptor type: Observation Point

No glare found

PV array 5 and OP 8

Receptor type: Observation Point

No glare found

PV array 5 and OP 9

Receptor type: Observation Point
No glare found

PV array 5 and OP 10

Receptor type: Observation Point
No glare found

PV array 5 and OP 11

Receptor type: Observation Point
No glare found

PV array 5 and OP 12

Receptor type: Observation Point
No glare found

PV array 5 and OP 13

Receptor type: Observation Point
No glare found

PV array 5 and OP 14

Receptor type: Observation Point
No glare found

PV array 5 and OP 15

Receptor type: Observation Point
No glare found

PV array 5 and OP 16

Receptor type: Observation Point
No glare found

PV array 5 and OP 17

Receptor type: Observation Point
No glare found

PV array 5 and OP 18

Receptor type: Observation Point
No glare found

PV array 5 and OP 19

Receptor type: Observation Point
No glare found

PV array 5 and OP 20

Receptor type: Observation Point
No glare found

PV array 5 and OP 21

Receptor type: Observation Point
No glare found

PV array 5 and OP 22

Receptor type: Observation Point
No glare found

PV array 5 and OP 23

Receptor type: Observation Point
No glare found

PV array 5 and OP 24

Receptor type: Observation Point
No glare found

PV array 5 and OP 25

Receptor type: Observation Point
No glare found

PV array 5 and OP 26

Receptor type: Observation Point
No glare found

PV array 5 and OP 27

Receptor type: Observation Point
No glare found

PV array 5 and OP 28

Receptor type: Observation Point
No glare found

PV array 5 and OP 29

Receptor type: Observation Point
No glare found

PV array 5 and OP 30

Receptor type: Observation Point
No glare found

PV array 5 and OP 31

Receptor type: Observation Point
No glare found

PV array 5 and OP 32

Receptor type: Observation Point
No glare found

PV array 5 and OP 33

Receptor type: Observation Point
No glare found

PV array 5 and OP 34

Receptor type: Observation Point
No glare found

PV array 5 and OP 35

Receptor type: Observation Point
No glare found

PV array 5 and OP 36

Receptor type: Observation Point
No glare found

PV array 5 and OP 37

Receptor type: Observation Point
No glare found

PV array 5 and OP 38

Receptor type: Observation Point
No glare found

PV array 5 and OP 39

Receptor type: Observation Point
No glare found

PV array 5 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 6 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 6 and Dalton Road

Receptor type: Route

No glare found

PV array 6 and Goodsprings Road

Receptor type: Route

No glare found

PV array 6 and Grey Road

Receptor type: Route

No glare found

PV array 6 and Marion Road

Receptor type: Route

No glare found

PV array 6 and OP 1

Receptor type: Observation Point

No glare found

PV array 6 and OP 2

Receptor type: Observation Point

No glare found

PV array 6 and OP 3

Receptor type: Observation Point

No glare found

PV array 6 and OP 4

Receptor type: Observation Point

No glare found

PV array 6 and OP 5

Receptor type: Observation Point

No glare found

PV array 6 and OP 6

Receptor type: Observation Point

No glare found

PV array 6 and OP 7

Receptor type: Observation Point

No glare found

PV array 6 and OP 8

Receptor type: Observation Point

No glare found

PV array 6 and OP 9

Receptor type: Observation Point

No glare found

PV array 6 and OP 10

Receptor type: Observation Point

No glare found

PV array 6 and OP 11

Receptor type: Observation Point

No glare found

PV array 6 and OP 12

Receptor type: Observation Point

No glare found

PV array 6 and OP 13

Receptor type: Observation Point

No glare found

PV array 6 and OP 14

Receptor type: Observation Point

No glare found

PV array 6 and OP 15

Receptor type: Observation Point

No glare found

PV array 6 and OP 16

Receptor type: Observation Point

No glare found

PV array 6 and OP 17

Receptor type: Observation Point

No glare found

PV array 6 and OP 18

Receptor type: Observation Point

No glare found

PV array 6 and OP 19

Receptor type: Observation Point

No glare found

PV array 6 and OP 20

Receptor type: Observation Point

No glare found

PV array 6 and OP 21

Receptor type: Observation Point

No glare found

PV array 6 and OP 22

Receptor type: Observation Point

No glare found

PV array 6 and OP 23

Receptor type: Observation Point

No glare found

PV array 6 and OP 24

Receptor type: Observation Point

No glare found

PV array 6 and OP 25

Receptor type: Observation Point

No glare found

PV array 6 and OP 26

Receptor type: Observation Point

No glare found

PV array 6 and OP 27

Receptor type: Observation Point

No glare found

PV array 6 and OP 28

Receptor type: Observation Point

No glare found

PV array 6 and OP 29

Receptor type: Observation Point
No glare found

PV array 6 and OP 30

Receptor type: Observation Point
No glare found

PV array 6 and OP 31

Receptor type: Observation Point
No glare found

PV array 6 and OP 32

Receptor type: Observation Point
No glare found

PV array 6 and OP 33

Receptor type: Observation Point
No glare found

PV array 6 and OP 34

Receptor type: Observation Point
No glare found

PV array 6 and OP 35

Receptor type: Observation Point
No glare found

PV array 6 and OP 36

Receptor type: Observation Point
No glare found

PV array 6 and OP 37

Receptor type: Observation Point
No glare found

PV array 6 and OP 38

Receptor type: Observation Point
No glare found

PV array 6 and OP 39

Receptor type: Observation Point
No glare found

PV array 6 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 7 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 7 and Dalton Road

Receptor type: Route

No glare found

PV array 7 and Goodsprings Road

Receptor type: Route

No glare found

PV array 7 and Grey Road

Receptor type: Route

No glare found

PV array 7 and Marion Road

Receptor type: Route

No glare found

PV array 7 and OP 1

Receptor type: Observation Point

No glare found

PV array 7 and OP 2

Receptor type: Observation Point

No glare found

PV array 7 and OP 3

Receptor type: Observation Point

No glare found

PV array 7 and OP 4

Receptor type: Observation Point

No glare found

PV array 7 and OP 5

Receptor type: Observation Point

No glare found

PV array 7 and OP 6

Receptor type: Observation Point

No glare found

PV array 7 and OP 7

Receptor type: Observation Point

No glare found

PV array 7 and OP 8

Receptor type: Observation Point

No glare found

PV array 7 and OP 9

Receptor type: Observation Point

No glare found

PV array 7 and OP 10

Receptor type: Observation Point

No glare found

PV array 7 and OP 11

Receptor type: Observation Point

No glare found

PV array 7 and OP 12

Receptor type: Observation Point

No glare found

PV array 7 and OP 13

Receptor type: Observation Point

No glare found

PV array 7 and OP 14

Receptor type: Observation Point

No glare found

PV array 7 and OP 15

Receptor type: Observation Point

No glare found

PV array 7 and OP 16

Receptor type: Observation Point

No glare found

PV array 7 and OP 17

Receptor type: Observation Point

No glare found

PV array 7 and OP 18

Receptor type: Observation Point

No glare found

PV array 7 and OP 19

Receptor type: Observation Point

No glare found

PV array 7 and OP 20

Receptor type: Observation Point

No glare found

PV array 7 and OP 21

Receptor type: Observation Point

No glare found

PV array 7 and OP 22

Receptor type: Observation Point

No glare found

PV array 7 and OP 23

Receptor type: Observation Point

No glare found

PV array 7 and OP 24

Receptor type: Observation Point

No glare found

PV array 7 and OP 25

Receptor type: Observation Point

No glare found

PV array 7 and OP 26

Receptor type: Observation Point

No glare found

PV array 7 and OP 27

Receptor type: Observation Point

No glare found

PV array 7 and OP 28

Receptor type: Observation Point

No glare found

PV array 7 and OP 29

Receptor type: Observation Point
No glare found

PV array 7 and OP 30

Receptor type: Observation Point
No glare found

PV array 7 and OP 31

Receptor type: Observation Point
No glare found

PV array 7 and OP 32

Receptor type: Observation Point
No glare found

PV array 7 and OP 33

Receptor type: Observation Point
No glare found

PV array 7 and OP 34

Receptor type: Observation Point
No glare found

PV array 7 and OP 35

Receptor type: Observation Point
No glare found

PV array 7 and OP 36

Receptor type: Observation Point
No glare found

PV array 7 and OP 37

Receptor type: Observation Point
No glare found

PV array 7 and OP 38

Receptor type: Observation Point
No glare found

PV array 7 and OP 39

Receptor type: Observation Point
No glare found

PV array 7 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 8 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 8 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 8 and Dalton Road

Receptor type: Route

No glare found

PV array 8 and Goodsprings Road

Receptor type: Route

No glare found

PV array 8 and Grey Road

Receptor type: Route

No glare found

PV array 8 and Marion Road

Receptor type: Route

No glare found

PV array 8 and OP 1

Receptor type: Observation Point

No glare found

PV array 8 and OP 2

Receptor type: Observation Point

No glare found

PV array 8 and OP 3

Receptor type: Observation Point

No glare found

PV array 8 and OP 4

Receptor type: Observation Point

No glare found

PV array 8 and OP 5

Receptor type: Observation Point

No glare found

PV array 8 and OP 6

Receptor type: Observation Point

No glare found

PV array 8 and OP 7

Receptor type: Observation Point

No glare found

PV array 8 and OP 8

Receptor type: Observation Point

No glare found

PV array 8 and OP 9

Receptor type: Observation Point
No glare found

PV array 8 and OP 10

Receptor type: Observation Point
No glare found

PV array 8 and OP 11

Receptor type: Observation Point
No glare found

PV array 8 and OP 12

Receptor type: Observation Point
No glare found

PV array 8 and OP 13

Receptor type: Observation Point
No glare found

PV array 8 and OP 14

Receptor type: Observation Point
No glare found

PV array 8 and OP 15

Receptor type: Observation Point
No glare found

PV array 8 and OP 16

Receptor type: Observation Point
No glare found

PV array 8 and OP 17

Receptor type: Observation Point
No glare found

PV array 8 and OP 18

Receptor type: Observation Point
No glare found

PV array 8 and OP 19

Receptor type: Observation Point
No glare found

PV array 8 and OP 20

Receptor type: Observation Point
No glare found

PV array 8 and OP 21

Receptor type: Observation Point
No glare found

PV array 8 and OP 22

Receptor type: Observation Point
No glare found

PV array 8 and OP 23

Receptor type: Observation Point
No glare found

PV array 8 and OP 24

Receptor type: Observation Point
No glare found

PV array 8 and OP 25

Receptor type: Observation Point
No glare found

PV array 8 and OP 26

Receptor type: Observation Point
No glare found

PV array 8 and OP 27

Receptor type: Observation Point
No glare found

PV array 8 and OP 28

Receptor type: Observation Point
No glare found

PV array 8 and OP 29

Receptor type: Observation Point
No glare found

PV array 8 and OP 30

Receptor type: Observation Point
No glare found

PV array 8 and OP 31

Receptor type: Observation Point
No glare found

PV array 8 and OP 32

Receptor type: Observation Point
No glare found

PV array 8 and OP 33

Receptor type: Observation Point
No glare found

PV array 8 and OP 34

Receptor type: Observation Point
No glare found

PV array 8 and OP 35

Receptor type: Observation Point
No glare found

PV array 8 and OP 36

Receptor type: Observation Point
No glare found

PV array 8 and OP 37

Receptor type: Observation Point
No glare found

PV array 8 and OP 38

Receptor type: Observation Point
No glare found

PV array 8 and OP 39

Receptor type: Observation Point
No glare found

PV array 8 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 9 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 9 and Dalton Road

Receptor type: Route

No glare found

PV array 9 and Goodsprings Road

Receptor type: Route

No glare found

PV array 9 and Grey Road

Receptor type: Route

No glare found

PV array 9 and Marion Road

Receptor type: Route

No glare found

PV array 9 and OP 1

Receptor type: Observation Point

No glare found

PV array 9 and OP 2

Receptor type: Observation Point

No glare found

PV array 9 and OP 3

Receptor type: Observation Point

No glare found

PV array 9 and OP 4

Receptor type: Observation Point

No glare found

PV array 9 and OP 5

Receptor type: Observation Point

No glare found

PV array 9 and OP 6

Receptor type: Observation Point

No glare found

PV array 9 and OP 7

Receptor type: Observation Point

No glare found

PV array 9 and OP 8

Receptor type: Observation Point

No glare found

PV array 9 and OP 9

Receptor type: Observation Point
No glare found

PV array 9 and OP 10

Receptor type: Observation Point
No glare found

PV array 9 and OP 11

Receptor type: Observation Point
No glare found

PV array 9 and OP 12

Receptor type: Observation Point
No glare found

PV array 9 and OP 13

Receptor type: Observation Point
No glare found

PV array 9 and OP 14

Receptor type: Observation Point
No glare found

PV array 9 and OP 15

Receptor type: Observation Point
No glare found

PV array 9 and OP 16

Receptor type: Observation Point
No glare found

PV array 9 and OP 17

Receptor type: Observation Point
No glare found

PV array 9 and OP 18

Receptor type: Observation Point
No glare found

PV array 9 and OP 19

Receptor type: Observation Point
No glare found

PV array 9 and OP 20

Receptor type: Observation Point
No glare found

PV array 9 and OP 21

Receptor type: Observation Point
No glare found

PV array 9 and OP 22

Receptor type: Observation Point
No glare found

PV array 9 and OP 23

Receptor type: Observation Point
No glare found

PV array 9 and OP 24

Receptor type: Observation Point
No glare found

PV array 9 and OP 25

Receptor type: Observation Point
No glare found

PV array 9 and OP 26

Receptor type: Observation Point
No glare found

PV array 9 and OP 27

Receptor type: Observation Point
No glare found

PV array 9 and OP 28

Receptor type: Observation Point
No glare found

PV array 9 and OP 29

Receptor type: Observation Point
No glare found

PV array 9 and OP 30

Receptor type: Observation Point
No glare found

PV array 9 and OP 31

Receptor type: Observation Point
No glare found

PV array 9 and OP 32

Receptor type: Observation Point
No glare found

PV array 9 and OP 33

Receptor type: Observation Point
No glare found

PV array 9 and OP 34

Receptor type: Observation Point
No glare found

PV array 9 and OP 35

Receptor type: Observation Point
No glare found

PV array 9 and OP 36

Receptor type: Observation Point
No glare found

PV array 9 and OP 37

Receptor type: Observation Point
No glare found

PV array 9 and OP 38

Receptor type: Observation Point
No glare found

PV array 9 and OP 39

Receptor type: Observation Point
No glare found

PV array 9 and OP 40

Receptor type: Observation Point
No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FORGESOLAR GLARE ANALYSIS

Project: **Golden Solar, LLC**

Single Axis Tracking

Site configuration: **Golden Solar LLC Arrays**

Site description: Single Axis Tracker

Created 05 Jul, 2022
Updated 06 Jul, 2022
Time-step 1 minute
Timezone offset UTC-6
Site ID 71834.12518
Category 10 MW to 100 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

Component Data

PV Arrays

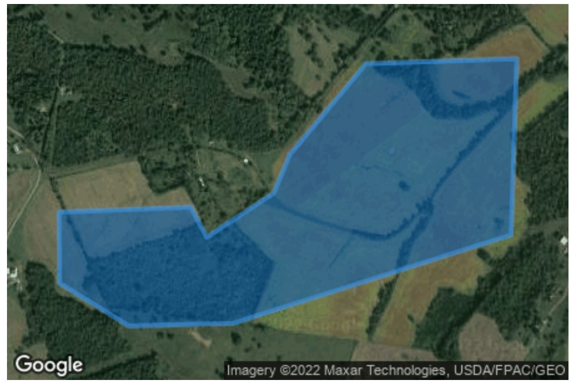
Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.168891	-88.015151	471.85	20.00	491.85
2	37.170806	-88.015129	481.62	20.00	501.62
3	37.171849	-88.014700	490.78	20.00	510.78
4	37.174700	-88.008339	521.21	20.00	541.21
5	37.173503	-88.007674	513.00	20.00	533.00
6	37.168918	-88.013730	479.01	20.00	499.02

Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

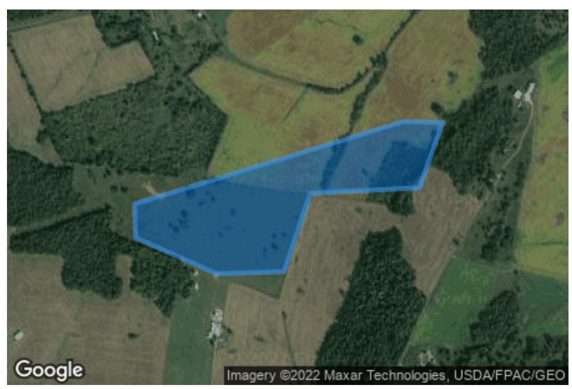
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.160249	-87.974446	472.55	20.00	492.55
2	37.161506	-87.974468	464.01	20.00	484.01
3	37.161514	-87.973277	478.64	20.00	498.64
4	37.160274	-87.973234	470.75	20.00	490.75

Name: PV array 11
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



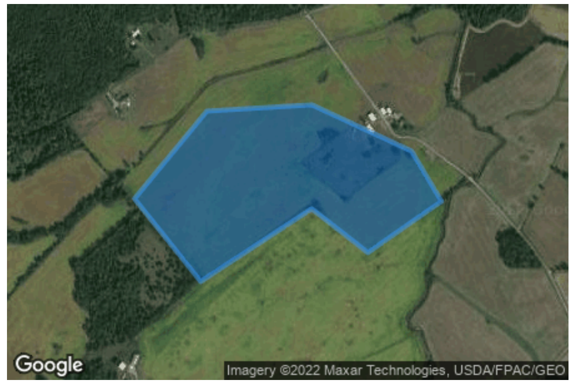
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174116	-87.968552	551.47	20.00	571.47
2	37.174252	-87.964024	504.07	20.00	524.07
3	37.173432	-87.963467	501.71	20.00	521.71
4	37.174628	-87.961171	483.18	20.00	503.18
5	37.175671	-87.960624	489.99	20.00	509.99
6	37.178165	-87.957994	467.27	20.00	487.27
7	37.178302	-87.952801	453.81	20.00	473.81
8	37.173488	-87.952998	469.68	20.00	489.68
9	37.171075	-87.962568	510.77	20.00	530.77
10	37.171007	-87.966151	592.62	20.00	612.62
11	37.172170	-87.968533	564.99	20.00	585.00

Name: PV array 12
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.170340	-87.964370	546.04	20.00	566.04
2	37.172597	-87.955100	478.60	20.00	498.60
3	37.172563	-87.953770	474.48	20.00	494.48
4	37.170785	-87.954564	504.97	20.00	524.97
5	37.170631	-87.958319	473.30	20.00	493.30
6	37.168495	-87.959218	483.20	20.00	503.20
7	37.168427	-87.961536	517.25	20.00	537.25
8	37.169418	-87.964325	571.83	20.00	591.83

Name: PV array 13
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

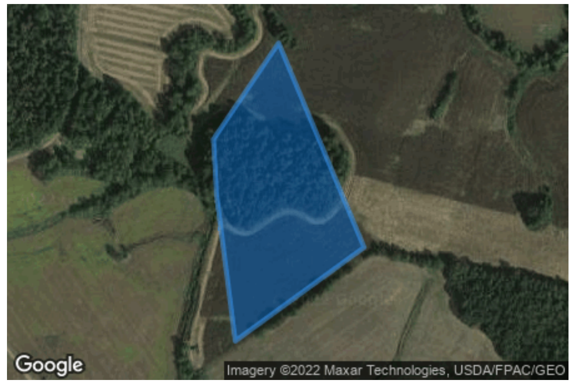


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.177897	-87.950761	448.40	20.00	468.40
2	37.180291	-87.948272	436.80	20.00	456.81
3	37.180462	-87.944667	440.68	20.00	460.68
4	37.179197	-87.941234	433.76	20.00	453.76
5	37.177829	-87.940204	433.16	20.00	453.17
6	37.176427	-87.942736	444.01	20.00	464.02
7	37.177624	-87.944667	462.20	20.00	482.20
8	37.175640	-87.948487	468.20	20.00	488.20

Name: PV array 14
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.181835	-87.943033	427.24	20.00	447.24
2	37.181886	-87.941317	426.32	20.00	446.32
3	37.181570	-87.940458	427.08	20.00	447.08
4	37.180595	-87.940426	426.70	20.00	446.70
5	37.180629	-87.942368	444.36	20.00	464.36
6	37.181202	-87.943001	435.59	20.00	455.60

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

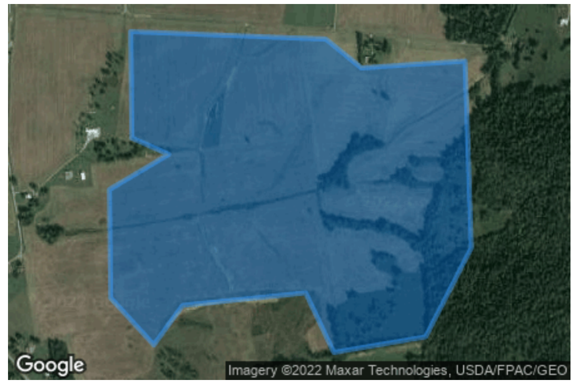


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.185047	-87.938256	423.20	20.00	443.20
2	37.182258	-87.936787	477.58	20.00	497.58
3	37.180981	-87.939002	424.96	20.00	444.96
4	37.182972	-87.939324	432.15	20.00	452.15
5	37.183733	-87.939378	431.87	20.00	451.87

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.161475	-87.972767	474.48	20.00	494.48
2	37.163750	-87.972767	469.77	20.00	489.77
3	37.166588	-87.971436	472.74	20.00	492.74
4	37.166520	-87.970492	481.54	20.00	501.54
5	37.165921	-87.969098	479.22	20.00	499.22
6	37.164690	-87.968904	479.55	20.00	499.55
7	37.161547	-87.970612	477.48	20.00	497.48

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.164745	-87.968745	478.76	20.00	498.76
2	37.164540	-87.962050	504.71	20.00	524.71
3	37.163753	-87.960827	504.92	20.00	524.92
4	37.163941	-87.957265	515.12	20.00	535.12
5	37.158845	-87.957051	514.02	20.00	534.02
6	37.156417	-87.958617	557.54	20.00	577.54
7	37.155989	-87.961771	541.38	20.00	561.38
8	37.157614	-87.962737	503.68	20.00	523.68
9	37.157272	-87.966964	517.20	20.00	537.20
10	37.156195	-87.967951	520.73	20.00	540.73
11	37.157477	-87.969432	473.56	20.00	493.56
12	37.160436	-87.969475	468.78	20.00	488.78
13	37.161393	-87.967436	481.86	20.00	501.86
14	37.161838	-87.968702	482.70	20.00	502.70

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.171122	-87.971084	488.15	20.00	508.15
2	37.169951	-87.971062	480.08	20.00	500.08
3	37.169925	-87.971921	475.90	20.00	495.90
4	37.171148	-87.971642	483.99	20.00	503.99

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174931	-88.007918	519.01	20.00	539.01
2	37.175614	-88.006513	519.11	20.00	539.11
3	37.175546	-88.005987	514.71	20.00	534.71
4	37.174383	-88.005944	512.69	20.00	532.69
5	37.174307	-88.007307	517.12	20.00	537.12

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.175533	-88.003872	534.54	20.00	554.54
2	37.175601	-88.001169	547.96	20.00	567.96
3	37.176353	-88.000546	563.63	20.00	583.63
4	37.176353	-87.999280	559.12	20.00	579.12
5	37.175601	-87.999152	536.76	20.00	556.76
6	37.174507	-88.000890	536.69	20.00	556.69
7	37.174404	-88.003078	526.07	20.00	546.08
8	37.175088	-88.004473	527.58	20.00	547.58

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172826	-88.005052	511.13	20.00	531.13
2	37.173561	-88.004430	525.47	20.00	545.47
3	37.173544	-88.001812	552.90	20.00	572.90
4	37.172518	-88.001748	567.83	20.00	587.83
5	37.171424	-88.003035	543.66	20.00	563.66
6	37.171389	-88.003744	530.76	20.00	550.76

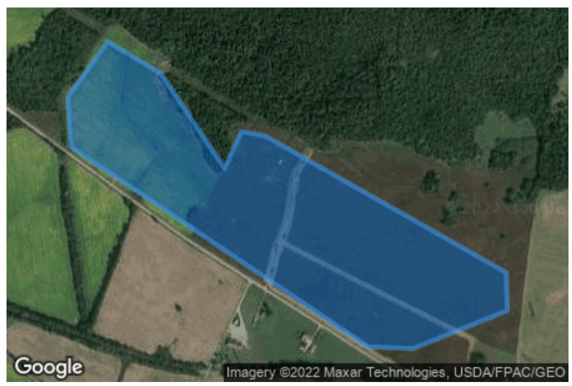
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172811	-88.006473	512.93	20.00	532.93
2	37.171450	-88.004681	520.85	20.00	540.85
3	37.169796	-88.003680	517.79	20.00	537.80
4	37.168659	-88.003723	492.79	20.00	512.79
5	37.168616	-88.004850	510.62	20.00	530.62
6	37.169522	-88.008165	553.59	20.00	573.59
7	37.170633	-88.008980	533.26	20.00	553.26
8	37.171600	-88.009109	536.21	20.00	556.21
9	37.172796	-88.007510	515.32	20.00	535.32

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

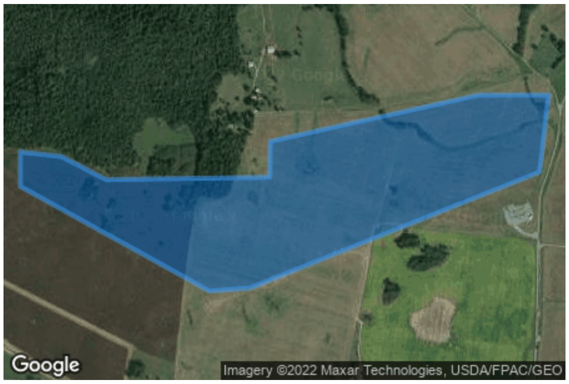
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169670	-88.001931	489.38	20.00	509.38
2	37.168037	-87.998948	470.46	20.00	490.46
3	37.167093	-87.998909	470.72	20.00	490.72
4	37.164956	-87.999891	464.22	20.00	484.22
5	37.164887	-88.001983	477.72	20.00	497.72
6	37.165768	-88.004880	482.47	20.00	502.47
7	37.169658	-88.003013	503.02	20.00	523.02

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



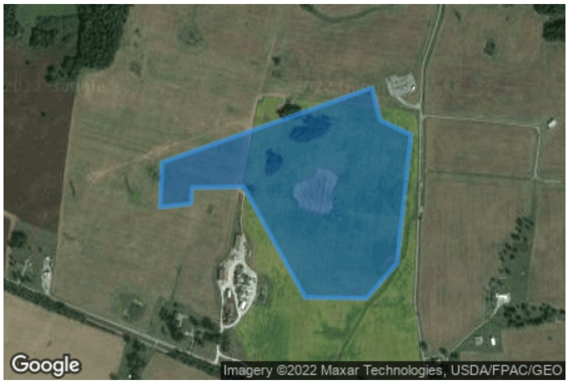
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172323	-87.999389	502.73	20.00	522.73
2	37.171451	-87.997565	499.86	20.00	519.86
3	37.168852	-87.995377	487.33	20.00	507.33
4	37.169861	-87.994797	480.27	20.00	500.27
5	37.169742	-87.993982	476.74	20.00	496.74
6	37.166001	-87.985699	475.20	20.00	495.20
7	37.164957	-87.985656	466.45	20.00	486.45
8	37.163914	-87.988896	461.37	20.00	481.37
9	37.163966	-87.990441	466.93	20.00	486.93
10	37.169443	-88.000651	474.96	20.00	494.96
11	37.170811	-88.000759	487.00	20.00	507.00

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169375	-87.989257	513.51	20.00	533.51
2	37.168742	-87.987712	494.91	20.00	514.91
3	37.168810	-87.982090	487.75	20.00	507.75
4	37.169785	-87.982069	501.67	20.00	521.67
5	37.171050	-87.974902	489.24	20.00	509.24
6	37.171050	-87.972499	476.79	20.00	496.79
7	37.168947	-87.972821	478.18	20.00	498.18
8	37.165784	-87.982760	473.19	20.00	493.19
9	37.165699	-87.984159	482.70	20.00	502.70
10	37.168555	-87.990661	488.12	20.00	508.13
11	37.169495	-87.990661	507.72	20.00	527.72

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.165689	-87.981759	468.95	20.00	488.95
2	37.167728	-87.974539	479.62	20.00	499.62
3	37.166847	-87.974260	488.47	20.00	508.47
4	37.166445	-87.973198	476.23	20.00	496.23
5	37.162928	-87.973679	465.27	20.00	485.27
6	37.161979	-87.974741	465.48	20.00	485.48
7	37.162005	-87.976844	487.94	20.00	507.94
8	37.165021	-87.978960	472.59	20.00	492.59
9	37.164995	-87.980719	472.96	20.00	492.96
10	37.164559	-87.980762	475.94	20.00	495.94
11	37.164465	-87.981824	472.61	20.00	492.61

Route Receptors

Name: Coleman Crider Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174988	-87.969214	551.26	6.00	557.26
2	37.175046	-87.968742	553.27	6.00	559.27
3	37.175398	-87.966949	524.83	6.00	530.83
4	37.175653	-87.965463	515.01	6.00	521.01
5	37.175843	-87.964479	508.41	6.00	514.41
6	37.175913	-87.963889	503.65	6.00	509.65
7	37.175918	-87.963577	500.76	6.00	506.76
8	37.175819	-87.963084	500.99	6.00	506.99
9	37.175681	-87.962156	499.41	6.00	505.41
10	37.175648	-87.961449	500.58	6.00	506.58
11	37.175723	-87.961052	498.75	6.00	504.75
12	37.175973	-87.960556	498.57	6.00	504.57
13	37.176386	-87.960116	502.58	6.00	508.58
14	37.176914	-87.959722	493.71	6.00	499.71
15	37.177162	-87.959480	489.10	6.00	495.10
16	37.177377	-87.959295	481.29	6.00	487.29
17	37.177798	-87.958864	474.72	6.00	480.72
18	37.178420	-87.958247	468.90	6.00	474.90
19	37.178841	-87.957815	469.40	6.00	475.40
20	37.179700	-87.956922	476.54	6.00	482.54
21	37.179618	-87.954528	486.14	6.00	492.14
22	37.179977	-87.953411	481.47	6.00	487.47
23	37.180590	-87.952134	464.66	6.00	470.66
24	37.181242	-87.950862	458.72	6.00	464.72
25	37.182327	-87.949157	455.01	6.00	461.01
26	37.182926	-87.944723	431.46	6.00	437.46
27	37.183635	-87.942236	441.87	6.00	447.87
28	37.183808	-87.942049	447.27	6.00	453.27
29	37.184148	-87.941866	450.58	6.00	456.58
30	37.184832	-87.941679	431.60	6.00	437.60
31	37.186155	-87.941566	425.73	6.00	431.73
32	37.186422	-87.941228	428.00	6.00	434.00
33	37.186649	-87.941024	428.10	6.00	434.10
34	37.187711	-87.940449	452.24	6.00	458.24

Name: Dalton Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174978	-88.008450	520.73	6.00	526.73
2	37.175722	-88.006760	519.24	6.00	525.24
3	37.176577	-88.005285	524.14	6.00	530.14
4	37.176701	-88.004711	525.48	6.00	531.48
5	37.176927	-88.003885	532.00	6.00	538.00
6	37.176876	-88.001975	592.23	6.00	598.23
7	37.177513	-88.000162	624.48	6.00	630.48
8	37.178244	-87.999148	656.77	6.00	662.77
9	37.178988	-87.998603	693.63	6.00	699.63
10	37.179936	-87.998016	708.11	6.00	714.11

Name: Goodsprings Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.157570	-87.974522	463.20	6.00	469.20
2	37.158617	-87.972569	458.04	6.00	464.04
3	37.158805	-87.972462	459.65	6.00	465.65
4	37.159316	-87.972542	466.35	6.00	472.35
5	37.159844	-87.972644	472.03	6.00	478.03
6	37.160840	-87.972848	471.41	6.00	477.41
7	37.161862	-87.973052	467.94	6.00	473.94
8	37.162773	-87.972993	470.92	6.00	476.92
9	37.164217	-87.972918	468.11	6.00	474.11
10	37.165702	-87.972871	470.46	6.00	476.46
11	37.167078	-87.972833	473.93	6.00	479.93
12	37.167706	-87.972804	474.39	6.00	480.39
13	37.168326	-87.972763	475.69	6.00	481.69
14	37.168822	-87.972565	476.24	6.00	482.24
15	37.169656	-87.972216	477.33	6.00	483.33
16	37.170028	-87.972138	479.29	6.00	485.29
17	37.170365	-87.972103	478.87	6.00	484.87
18	37.170831	-87.971991	478.68	6.00	484.68
19	37.171410	-87.971642	483.45	6.00	489.45
20	37.171990	-87.971272	491.67	6.00	497.67
21	37.173101	-87.970521	508.14	6.00	514.14
22	37.173917	-87.969990	529.66	6.00	535.66
23	37.174862	-87.969271	548.17	6.00	554.17
24	37.176063	-87.968949	574.93	6.00	580.93
25	37.176555	-87.968810	584.21	6.00	590.21

Name: Grey Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.167000	-87.972802	474.32	6.00	480.32
2	37.166606	-87.968747	486.48	6.00	492.48
3	37.165221	-87.968876	479.06	6.00	485.06
4	37.164332	-87.956216	543.31	6.00	549.31
5	37.168607	-87.953523	532.09	6.00	538.09
6	37.172369	-87.950916	493.22	6.00	499.22

Name: Marion Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.179023	-88.013394	492.84	6.00	498.84
2	37.174923	-88.008413	521.38	6.00	527.38
3	37.171084	-88.003746	530.86	6.00	536.86
4	37.170054	-88.002115	497.31	6.00	503.31
5	37.169045	-88.000308	474.91	6.00	480.91
6	37.166074	-87.995029	465.64	6.00	471.64
7	37.163308	-87.989600	457.21	6.00	463.21
8	37.161761	-87.984847	470.35	6.00	476.35
9	37.160923	-87.982353	475.94	6.00	481.94
10	37.160205	-87.979901	473.82	6.00	479.82
11	37.159568	-87.977994	468.47	6.00	474.47
12	37.159042	-87.976774	464.82	6.00	470.82
13	37.158204	-87.975352	461.23	6.00	467.23
14	37.157321	-87.974263	462.91	6.00	468.91
15	37.156079	-87.973110	463.83	6.00	469.83
16	37.152492	-87.969602	488.18	6.00	494.18
17	37.151603	-87.968709	495.56	6.00	501.56
18	37.150889	-87.967907	490.24	6.00	496.24
19	37.150444	-87.967126	493.40	6.00	499.40
20	37.150132	-87.966458	494.76	6.00	500.76
21	37.149431	-87.964774	485.99	6.00	491.99
22	37.149260	-87.963765	490.35	6.00	496.35
23	37.149366	-87.962928	489.29	6.00	495.29
24	37.150729	-87.958390	484.35	6.00	490.35
25	37.150738	-87.957732	484.18	6.00	490.18
26	37.150680	-87.957095	486.56	6.00	492.56
27	37.149895	-87.955220	510.73	6.00	516.73
28	37.146975	-87.949045	511.64	6.00	517.64

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	37.161000	-87.981100	486.70	6.00
OP 2	2	37.160900	-87.980400	492.00	6.00
OP 3	3	37.157900	-87.974400	469.06	6.00
OP 4	4	37.157500	-87.974200	468.80	6.00
OP 5	5	37.157700	-87.973900	470.02	6.00
OP 6	6	37.157900	-87.973600	466.19	6.00
OP 7	7	37.158100	-87.973900	464.87	6.00
OP 8	8	37.156900	-87.974700	472.46	6.00
OP 9	9	37.156600	-87.975600	474.63	6.00
OP 10	10	37.156700	-87.976400	465.77	6.00
OP 11	11	37.157100	-87.974900	472.73	6.00
OP 12	12	37.165000	-88.005500	484.44	6.00
OP 13	13	37.164800	-88.003900	480.93	6.00
OP 14	14	37.164400	-88.003200	478.43	6.00
OP 15	15	37.155600	-87.971500	489.76	6.00
OP 16	16	37.156100	-87.972200	477.95	6.00
OP 17	17	37.158000	-87.973100	467.54	6.00
OP 18	18	37.158200	-87.972900	465.85	6.00
OP 19	19	37.160200	-87.972200	475.89	6.00
OP 20	20	37.162900	-87.986600	479.12	6.00
OP 21	21	37.164200	-87.992600	458.49	6.00
OP 22	22	37.164900	-87.994100	469.09	6.00
OP 23	23	37.170400	-88.003300	522.11	6.00
OP 24	24	37.149600	-87.959700	487.95	6.00
OP 25	25	37.149000	-87.960600	492.34	6.00
OP 26	26	37.149400	-87.961500	493.50	6.00
OP 27	27	37.150300	-87.961200	499.10	6.00
OP 28	28	37.150000	-87.962000	503.59	6.00
OP 29	29	37.148900	-87.962700	493.98	6.00
OP 30	30	37.163500	-87.995400	475.55	6.00
OP 31	31	37.157400	-87.975400	467.37	6.00
OP 32	32	37.155000	-87.972800	475.91	6.00
OP 33	33	37.164400	-87.960200	510.03	6.00
OP 34	34	37.172000	-87.970000	519.07	6.00
OP 35	35	37.170900	-87.982400	533.37	6.00
OP 36	36	37.177000	-87.993500	718.16	6.00
OP 37	37	37.175000	-88.009100	521.67	6.00
OP 38	38	37.178800	-88.003800	565.94	6.00
OP 39	39	37.166600	-87.961300	505.68	6.00
OP 40	40	37.165600	-87.956400	555.80	6.00

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 1 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 1 and Dalton Road

Receptor type: Route

No glare found

PV array 1 and Goodsprings Road

Receptor type: Route

No glare found

PV array 1 and Grey Road

Receptor type: Route

No glare found

PV array 1 and Marion Road

Receptor type: Route

No glare found

PV array 1 and OP 1

Receptor type: Observation Point

No glare found

PV array 1 and OP 2

Receptor type: Observation Point

No glare found

PV array 1 and OP 3

Receptor type: Observation Point

No glare found

PV array 1 and OP 4

Receptor type: Observation Point

No glare found

PV array 1 and OP 5

Receptor type: Observation Point

No glare found

PV array 1 and OP 6

Receptor type: Observation Point

No glare found

PV array 1 and OP 7

Receptor type: Observation Point
No glare found

PV array 1 and OP 8

Receptor type: Observation Point
No glare found

PV array 1 and OP 9

Receptor type: Observation Point
No glare found

PV array 1 and OP 10

Receptor type: Observation Point
No glare found

PV array 1 and OP 11

Receptor type: Observation Point
No glare found

PV array 1 and OP 12

Receptor type: Observation Point
No glare found

PV array 1 and OP 13

Receptor type: Observation Point
No glare found

PV array 1 and OP 14

Receptor type: Observation Point
No glare found

PV array 1 and OP 15

Receptor type: Observation Point
No glare found

PV array 1 and OP 16

Receptor type: Observation Point
No glare found

PV array 1 and OP 17

Receptor type: Observation Point
No glare found

PV array 1 and OP 18

Receptor type: Observation Point
No glare found

PV array 1 and OP 19

Receptor type: Observation Point
No glare found

PV array 1 and OP 20

Receptor type: Observation Point
No glare found

PV array 1 and OP 21

Receptor type: Observation Point
No glare found

PV array 1 and OP 22

Receptor type: Observation Point
No glare found

PV array 1 and OP 23

Receptor type: Observation Point
No glare found

PV array 1 and OP 24

Receptor type: Observation Point
No glare found

PV array 1 and OP 25

Receptor type: Observation Point
No glare found

PV array 1 and OP 26

Receptor type: Observation Point
No glare found

PV array 1 and OP 27

Receptor type: Observation Point

No glare found

PV array 1 and OP 28

Receptor type: Observation Point

No glare found

PV array 1 and OP 29

Receptor type: Observation Point

No glare found

PV array 1 and OP 30

Receptor type: Observation Point

No glare found

PV array 1 and OP 31

Receptor type: Observation Point

No glare found

PV array 1 and OP 32

Receptor type: Observation Point

No glare found

PV array 1 and OP 33

Receptor type: Observation Point

No glare found

PV array 1 and OP 34

Receptor type: Observation Point

No glare found

PV array 1 and OP 35

Receptor type: Observation Point

No glare found

PV array 1 and OP 36

Receptor type: Observation Point

No glare found

PV array 1 and OP 37

Receptor type: Observation Point

No glare found

PV array 1 and OP 38

Receptor type: Observation Point

No glare found

PV array 1 and OP 39

Receptor type: Observation Point

No glare found

PV array 1 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 10 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 10 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 10 and Dalton Road

Receptor type: Route

No glare found

PV array 10 and Goodsprings Road

Receptor type: Route

No glare found

PV array 10 and Grey Road

Receptor type: Route

No glare found

PV array 10 and Marion Road

Receptor type: Route

No glare found

PV array 10 and OP 1

Receptor type: Observation Point

No glare found

PV array 10 and OP 2

Receptor type: Observation Point

No glare found

PV array 10 and OP 3

Receptor type: Observation Point

No glare found

PV array 10 and OP 4

Receptor type: Observation Point

No glare found

PV array 10 and OP 5

Receptor type: Observation Point

No glare found

PV array 10 and OP 6

Receptor type: Observation Point

No glare found

PV array 10 and OP 7

Receptor type: Observation Point

No glare found

PV array 10 and OP 8

Receptor type: Observation Point

No glare found

PV array 10 and OP 9

Receptor type: Observation Point
No glare found

PV array 10 and OP 10

Receptor type: Observation Point
No glare found

PV array 10 and OP 11

Receptor type: Observation Point
No glare found

PV array 10 and OP 12

Receptor type: Observation Point
No glare found

PV array 10 and OP 13

Receptor type: Observation Point
No glare found

PV array 10 and OP 14

Receptor type: Observation Point
No glare found

PV array 10 and OP 15

Receptor type: Observation Point
No glare found

PV array 10 and OP 16

Receptor type: Observation Point
No glare found

PV array 10 and OP 17

Receptor type: Observation Point
No glare found

PV array 10 and OP 18

Receptor type: Observation Point
No glare found

PV array 10 and OP 19

Receptor type: Observation Point
No glare found

PV array 10 and OP 20

Receptor type: Observation Point
No glare found

PV array 10 and OP 21

Receptor type: Observation Point
No glare found

PV array 10 and OP 22

Receptor type: Observation Point
No glare found

PV array 10 and OP 23

Receptor type: Observation Point
No glare found

PV array 10 and OP 24

Receptor type: Observation Point
No glare found

PV array 10 and OP 25

Receptor type: Observation Point
No glare found

PV array 10 and OP 26

Receptor type: Observation Point
No glare found

PV array 10 and OP 27

Receptor type: Observation Point
No glare found

PV array 10 and OP 28

Receptor type: Observation Point
No glare found

PV array 10 and OP 29

Receptor type: Observation Point
No glare found

PV array 10 and OP 30

Receptor type: Observation Point
No glare found

PV array 10 and OP 31

Receptor type: Observation Point
No glare found

PV array 10 and OP 32

Receptor type: Observation Point
No glare found

PV array 10 and OP 33

Receptor type: Observation Point
No glare found

PV array 10 and OP 34

Receptor type: Observation Point
No glare found

PV array 10 and OP 35

Receptor type: Observation Point
No glare found

PV array 10 and OP 36

Receptor type: Observation Point
No glare found

PV array 10 and OP 37

Receptor type: Observation Point
No glare found

PV array 10 and OP 38

Receptor type: Observation Point
No glare found

PV array 10 and OP 39

Receptor type: Observation Point
No glare found

PV array 10 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 11 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 11 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 11 and Dalton Road

Receptor type: Route

No glare found

PV array 11 and Goodsprings Road

Receptor type: Route

No glare found

PV array 11 and Grey Road

Receptor type: Route

No glare found

PV array 11 and Marion Road

Receptor type: Route

No glare found

PV array 11 and OP 1

Receptor type: Observation Point

No glare found

PV array 11 and OP 2

Receptor type: Observation Point

No glare found

PV array 11 and OP 3

Receptor type: Observation Point

No glare found

PV array 11 and OP 4

Receptor type: Observation Point

No glare found

PV array 11 and OP 5

Receptor type: Observation Point

No glare found

PV array 11 and OP 6

Receptor type: Observation Point

No glare found

PV array 11 and OP 7

Receptor type: Observation Point

No glare found

PV array 11 and OP 8

Receptor type: Observation Point

No glare found

PV array 11 and OP 9

Receptor type: Observation Point
No glare found

PV array 11 and OP 10

Receptor type: Observation Point
No glare found

PV array 11 and OP 11

Receptor type: Observation Point
No glare found

PV array 11 and OP 12

Receptor type: Observation Point
No glare found

PV array 11 and OP 13

Receptor type: Observation Point
No glare found

PV array 11 and OP 14

Receptor type: Observation Point
No glare found

PV array 11 and OP 15

Receptor type: Observation Point
No glare found

PV array 11 and OP 16

Receptor type: Observation Point
No glare found

PV array 11 and OP 17

Receptor type: Observation Point
No glare found

PV array 11 and OP 18

Receptor type: Observation Point
No glare found

PV array 11 and OP 19

Receptor type: Observation Point
No glare found

PV array 11 and OP 20

Receptor type: Observation Point
No glare found

PV array 11 and OP 21

Receptor type: Observation Point
No glare found

PV array 11 and OP 22

Receptor type: Observation Point
No glare found

PV array 11 and OP 23

Receptor type: Observation Point
No glare found

PV array 11 and OP 24

Receptor type: Observation Point
No glare found

PV array 11 and OP 25

Receptor type: Observation Point
No glare found

PV array 11 and OP 26

Receptor type: Observation Point
No glare found

PV array 11 and OP 27

Receptor type: Observation Point
No glare found

PV array 11 and OP 28

Receptor type: Observation Point
No glare found

PV array 11 and OP 29

Receptor type: Observation Point

No glare found

PV array 11 and OP 30

Receptor type: Observation Point

No glare found

PV array 11 and OP 31

Receptor type: Observation Point

No glare found

PV array 11 and OP 32

Receptor type: Observation Point

No glare found

PV array 11 and OP 33

Receptor type: Observation Point

No glare found

PV array 11 and OP 34

Receptor type: Observation Point

No glare found

PV array 11 and OP 35

Receptor type: Observation Point

No glare found

PV array 11 and OP 36

Receptor type: Observation Point

No glare found

PV array 11 and OP 37

Receptor type: Observation Point

No glare found

PV array 11 and OP 38

Receptor type: Observation Point

No glare found

PV array 11 and OP 39

Receptor type: Observation Point

No glare found

PV array 11 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 12 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 12 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 12 and Dalton Road

Receptor type: Route

No glare found

PV array 12 and Goodsprings Road

Receptor type: Route

No glare found

PV array 12 and Grey Road

Receptor type: Route

No glare found

PV array 12 and Marion Road

Receptor type: Route

No glare found

PV array 12 and OP 1

Receptor type: Observation Point

No glare found

PV array 12 and OP 2

Receptor type: Observation Point

No glare found

PV array 12 and OP 3

Receptor type: Observation Point

No glare found

PV array 12 and OP 4

Receptor type: Observation Point

No glare found

PV array 12 and OP 5

Receptor type: Observation Point

No glare found

PV array 12 and OP 6

Receptor type: Observation Point

No glare found

PV array 12 and OP 7

Receptor type: Observation Point

No glare found

PV array 12 and OP 8

Receptor type: Observation Point

No glare found

PV array 12 and OP 9

Receptor type: Observation Point
No glare found

PV array 12 and OP 10

Receptor type: Observation Point
No glare found

PV array 12 and OP 11

Receptor type: Observation Point
No glare found

PV array 12 and OP 12

Receptor type: Observation Point
No glare found

PV array 12 and OP 13

Receptor type: Observation Point
No glare found

PV array 12 and OP 14

Receptor type: Observation Point
No glare found

PV array 12 and OP 15

Receptor type: Observation Point
No glare found

PV array 12 and OP 16

Receptor type: Observation Point
No glare found

PV array 12 and OP 17

Receptor type: Observation Point
No glare found

PV array 12 and OP 18

Receptor type: Observation Point
No glare found

PV array 12 and OP 19

Receptor type: Observation Point
No glare found

PV array 12 and OP 20

Receptor type: Observation Point
No glare found

PV array 12 and OP 21

Receptor type: Observation Point
No glare found

PV array 12 and OP 22

Receptor type: Observation Point
No glare found

PV array 12 and OP 23

Receptor type: Observation Point
No glare found

PV array 12 and OP 24

Receptor type: Observation Point
No glare found

PV array 12 and OP 25

Receptor type: Observation Point
No glare found

PV array 12 and OP 26

Receptor type: Observation Point
No glare found

PV array 12 and OP 27

Receptor type: Observation Point
No glare found

PV array 12 and OP 28

Receptor type: Observation Point
No glare found

PV array 12 and OP 29

Receptor type: Observation Point
No glare found

PV array 12 and OP 30

Receptor type: Observation Point
No glare found

PV array 12 and OP 31

Receptor type: Observation Point
No glare found

PV array 12 and OP 32

Receptor type: Observation Point
No glare found

PV array 12 and OP 33

Receptor type: Observation Point
No glare found

PV array 12 and OP 34

Receptor type: Observation Point
No glare found

PV array 12 and OP 35

Receptor type: Observation Point
No glare found

PV array 12 and OP 36

Receptor type: Observation Point
No glare found

PV array 12 and OP 37

Receptor type: Observation Point
No glare found

PV array 12 and OP 38

Receptor type: Observation Point
No glare found

PV array 12 and OP 39

Receptor type: Observation Point
No glare found

PV array 12 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 13 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 13 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 13 and Dalton Road

Receptor type: Route

No glare found

PV array 13 and Goodsprings Road

Receptor type: Route

No glare found

PV array 13 and Grey Road

Receptor type: Route

No glare found

PV array 13 and Marion Road

Receptor type: Route

No glare found

PV array 13 and OP 1

Receptor type: Observation Point

No glare found

PV array 13 and OP 2

Receptor type: Observation Point

No glare found

PV array 13 and OP 3

Receptor type: Observation Point

No glare found

PV array 13 and OP 4

Receptor type: Observation Point

No glare found

PV array 13 and OP 5

Receptor type: Observation Point

No glare found

PV array 13 and OP 6

Receptor type: Observation Point

No glare found

PV array 13 and OP 7

Receptor type: Observation Point

No glare found

PV array 13 and OP 8

Receptor type: Observation Point

No glare found

PV array 13 and OP 9

Receptor type: Observation Point
No glare found

PV array 13 and OP 10

Receptor type: Observation Point
No glare found

PV array 13 and OP 11

Receptor type: Observation Point
No glare found

PV array 13 and OP 12

Receptor type: Observation Point
No glare found

PV array 13 and OP 13

Receptor type: Observation Point
No glare found

PV array 13 and OP 14

Receptor type: Observation Point
No glare found

PV array 13 and OP 15

Receptor type: Observation Point
No glare found

PV array 13 and OP 16

Receptor type: Observation Point
No glare found

PV array 13 and OP 17

Receptor type: Observation Point
No glare found

PV array 13 and OP 18

Receptor type: Observation Point
No glare found

PV array 13 and OP 19

Receptor type: Observation Point
No glare found

PV array 13 and OP 20

Receptor type: Observation Point
No glare found

PV array 13 and OP 21

Receptor type: Observation Point
No glare found

PV array 13 and OP 22

Receptor type: Observation Point
No glare found

PV array 13 and OP 23

Receptor type: Observation Point
No glare found

PV array 13 and OP 24

Receptor type: Observation Point
No glare found

PV array 13 and OP 25

Receptor type: Observation Point
No glare found

PV array 13 and OP 26

Receptor type: Observation Point
No glare found

PV array 13 and OP 27

Receptor type: Observation Point
No glare found

PV array 13 and OP 28

Receptor type: Observation Point
No glare found

PV array 13 and OP 29

Receptor type: Observation Point
No glare found

PV array 13 and OP 30

Receptor type: Observation Point
No glare found

PV array 13 and OP 31

Receptor type: Observation Point
No glare found

PV array 13 and OP 32

Receptor type: Observation Point
No glare found

PV array 13 and OP 33

Receptor type: Observation Point
No glare found

PV array 13 and OP 34

Receptor type: Observation Point
No glare found

PV array 13 and OP 35

Receptor type: Observation Point
No glare found

PV array 13 and OP 36

Receptor type: Observation Point
No glare found

PV array 13 and OP 37

Receptor type: Observation Point
No glare found

PV array 13 and OP 38

Receptor type: Observation Point
No glare found

PV array 13 and OP 39

Receptor type: Observation Point
No glare found

PV array 13 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 14 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 14 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 14 and Dalton Road

Receptor type: Route

No glare found

PV array 14 and Goodsprings Road

Receptor type: Route

No glare found

PV array 14 and Grey Road

Receptor type: Route

No glare found

PV array 14 and Marion Road

Receptor type: Route

No glare found

PV array 14 and OP 1

Receptor type: Observation Point

No glare found

PV array 14 and OP 2

Receptor type: Observation Point

No glare found

PV array 14 and OP 3

Receptor type: Observation Point

No glare found

PV array 14 and OP 4

Receptor type: Observation Point

No glare found

PV array 14 and OP 5

Receptor type: Observation Point

No glare found

PV array 14 and OP 6

Receptor type: Observation Point

No glare found

PV array 14 and OP 7

Receptor type: Observation Point

No glare found

PV array 14 and OP 8

Receptor type: Observation Point

No glare found

PV array 14 and OP 9

Receptor type: Observation Point
No glare found

PV array 14 and OP 10

Receptor type: Observation Point
No glare found

PV array 14 and OP 11

Receptor type: Observation Point
No glare found

PV array 14 and OP 12

Receptor type: Observation Point
No glare found

PV array 14 and OP 13

Receptor type: Observation Point
No glare found

PV array 14 and OP 14

Receptor type: Observation Point
No glare found

PV array 14 and OP 15

Receptor type: Observation Point
No glare found

PV array 14 and OP 16

Receptor type: Observation Point
No glare found

PV array 14 and OP 17

Receptor type: Observation Point
No glare found

PV array 14 and OP 18

Receptor type: Observation Point
No glare found

PV array 14 and OP 19

Receptor type: Observation Point
No glare found

PV array 14 and OP 20

Receptor type: Observation Point
No glare found

PV array 14 and OP 21

Receptor type: Observation Point
No glare found

PV array 14 and OP 22

Receptor type: Observation Point
No glare found

PV array 14 and OP 23

Receptor type: Observation Point
No glare found

PV array 14 and OP 24

Receptor type: Observation Point
No glare found

PV array 14 and OP 25

Receptor type: Observation Point
No glare found

PV array 14 and OP 26

Receptor type: Observation Point
No glare found

PV array 14 and OP 27

Receptor type: Observation Point
No glare found

PV array 14 and OP 28

Receptor type: Observation Point
No glare found

PV array 14 and OP 29

Receptor type: Observation Point

No glare found

PV array 14 and OP 30

Receptor type: Observation Point

No glare found

PV array 14 and OP 31

Receptor type: Observation Point

No glare found

PV array 14 and OP 32

Receptor type: Observation Point

No glare found

PV array 14 and OP 33

Receptor type: Observation Point

No glare found

PV array 14 and OP 34

Receptor type: Observation Point

No glare found

PV array 14 and OP 35

Receptor type: Observation Point

No glare found

PV array 14 and OP 36

Receptor type: Observation Point

No glare found

PV array 14 and OP 37

Receptor type: Observation Point

No glare found

PV array 14 and OP 38

Receptor type: Observation Point

No glare found

PV array 14 and OP 39

Receptor type: Observation Point

No glare found

PV array 14 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 15 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 15 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 15 and Dalton Road

Receptor type: Route

No glare found

PV array 15 and Goodsprings Road

Receptor type: Route

No glare found

PV array 15 and Grey Road

Receptor type: Route

No glare found

PV array 15 and Marion Road

Receptor type: Route

No glare found

PV array 15 and OP 1

Receptor type: Observation Point

No glare found

PV array 15 and OP 2

Receptor type: Observation Point

No glare found

PV array 15 and OP 3

Receptor type: Observation Point

No glare found

PV array 15 and OP 4

Receptor type: Observation Point

No glare found

PV array 15 and OP 5

Receptor type: Observation Point

No glare found

PV array 15 and OP 6

Receptor type: Observation Point

No glare found

PV array 15 and OP 7

Receptor type: Observation Point

No glare found

PV array 15 and OP 8

Receptor type: Observation Point

No glare found

PV array 15 and OP 9

Receptor type: Observation Point
No glare found

PV array 15 and OP 10

Receptor type: Observation Point
No glare found

PV array 15 and OP 11

Receptor type: Observation Point
No glare found

PV array 15 and OP 12

Receptor type: Observation Point
No glare found

PV array 15 and OP 13

Receptor type: Observation Point
No glare found

PV array 15 and OP 14

Receptor type: Observation Point
No glare found

PV array 15 and OP 15

Receptor type: Observation Point
No glare found

PV array 15 and OP 16

Receptor type: Observation Point
No glare found

PV array 15 and OP 17

Receptor type: Observation Point
No glare found

PV array 15 and OP 18

Receptor type: Observation Point
No glare found

PV array 15 and OP 19

Receptor type: Observation Point
No glare found

PV array 15 and OP 20

Receptor type: Observation Point
No glare found

PV array 15 and OP 21

Receptor type: Observation Point
No glare found

PV array 15 and OP 22

Receptor type: Observation Point
No glare found

PV array 15 and OP 23

Receptor type: Observation Point
No glare found

PV array 15 and OP 24

Receptor type: Observation Point
No glare found

PV array 15 and OP 25

Receptor type: Observation Point
No glare found

PV array 15 and OP 26

Receptor type: Observation Point
No glare found

PV array 15 and OP 27

Receptor type: Observation Point
No glare found

PV array 15 and OP 28

Receptor type: Observation Point
No glare found

PV array 15 and OP 29

Receptor type: Observation Point
No glare found

PV array 15 and OP 30

Receptor type: Observation Point
No glare found

PV array 15 and OP 31

Receptor type: Observation Point
No glare found

PV array 15 and OP 32

Receptor type: Observation Point
No glare found

PV array 15 and OP 33

Receptor type: Observation Point
No glare found

PV array 15 and OP 34

Receptor type: Observation Point
No glare found

PV array 15 and OP 35

Receptor type: Observation Point
No glare found

PV array 15 and OP 36

Receptor type: Observation Point
No glare found

PV array 15 and OP 37

Receptor type: Observation Point
No glare found

PV array 15 and OP 38

Receptor type: Observation Point
No glare found

PV array 15 and OP 39

Receptor type: Observation Point
No glare found

PV array 15 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 16 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 16 and Dalton Road

Receptor type: Route

No glare found

PV array 16 and Goodsprings Road

Receptor type: Route

No glare found

PV array 16 and Grey Road

Receptor type: Route

No glare found

PV array 16 and Marion Road

Receptor type: Route

No glare found

PV array 16 and OP 1

Receptor type: Observation Point

No glare found

PV array 16 and OP 2

Receptor type: Observation Point

No glare found

PV array 16 and OP 3

Receptor type: Observation Point

No glare found

PV array 16 and OP 4

Receptor type: Observation Point

No glare found

PV array 16 and OP 5

Receptor type: Observation Point

No glare found

PV array 16 and OP 6

Receptor type: Observation Point

No glare found

PV array 16 and OP 7

Receptor type: Observation Point

No glare found

PV array 16 and OP 8

Receptor type: Observation Point

No glare found

PV array 16 and OP 9

Receptor type: Observation Point
No glare found

PV array 16 and OP 10

Receptor type: Observation Point
No glare found

PV array 16 and OP 11

Receptor type: Observation Point
No glare found

PV array 16 and OP 12

Receptor type: Observation Point
No glare found

PV array 16 and OP 13

Receptor type: Observation Point
No glare found

PV array 16 and OP 14

Receptor type: Observation Point
No glare found

PV array 16 and OP 15

Receptor type: Observation Point
No glare found

PV array 16 and OP 16

Receptor type: Observation Point
No glare found

PV array 16 and OP 17

Receptor type: Observation Point
No glare found

PV array 16 and OP 18

Receptor type: Observation Point
No glare found

PV array 16 and OP 19

Receptor type: Observation Point
No glare found

PV array 16 and OP 20

Receptor type: Observation Point
No glare found

PV array 16 and OP 21

Receptor type: Observation Point
No glare found

PV array 16 and OP 22

Receptor type: Observation Point
No glare found

PV array 16 and OP 23

Receptor type: Observation Point
No glare found

PV array 16 and OP 24

Receptor type: Observation Point
No glare found

PV array 16 and OP 25

Receptor type: Observation Point
No glare found

PV array 16 and OP 26

Receptor type: Observation Point
No glare found

PV array 16 and OP 27

Receptor type: Observation Point
No glare found

PV array 16 and OP 28

Receptor type: Observation Point
No glare found

PV array 16 and OP 29

Receptor type: Observation Point

No glare found

PV array 16 and OP 30

Receptor type: Observation Point

No glare found

PV array 16 and OP 31

Receptor type: Observation Point

No glare found

PV array 16 and OP 32

Receptor type: Observation Point

No glare found

PV array 16 and OP 33

Receptor type: Observation Point

No glare found

PV array 16 and OP 34

Receptor type: Observation Point

No glare found

PV array 16 and OP 35

Receptor type: Observation Point

No glare found

PV array 16 and OP 36

Receptor type: Observation Point

No glare found

PV array 16 and OP 37

Receptor type: Observation Point

No glare found

PV array 16 and OP 38

Receptor type: Observation Point

No glare found

PV array 16 and OP 39

Receptor type: Observation Point

No glare found

PV array 16 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 17 and Coleman Crider Road

Receptor type: Route
No glare found

PV array 17 and Dalton Road

Receptor type: Route
No glare found

PV array 17 and Goodsprings Road

Receptor type: Route
No glare found

PV array 17 and Grey Road

Receptor type: Route
No glare found

PV array 17 and Marion Road

Receptor type: Route
No glare found

PV array 17 and OP 1

Receptor type: Observation Point
No glare found

PV array 17 and OP 2

Receptor type: Observation Point
No glare found

PV array 17 and OP 3

Receptor type: Observation Point
No glare found

PV array 17 and OP 4

Receptor type: Observation Point
No glare found

PV array 17 and OP 5

Receptor type: Observation Point
No glare found

PV array 17 and OP 6

Receptor type: Observation Point
No glare found

PV array 17 and OP 7

Receptor type: Observation Point
No glare found

PV array 17 and OP 8

Receptor type: Observation Point
No glare found

PV array 17 and OP 9

Receptor type: Observation Point
No glare found

PV array 17 and OP 10

Receptor type: Observation Point
No glare found

PV array 17 and OP 11

Receptor type: Observation Point
No glare found

PV array 17 and OP 12

Receptor type: Observation Point
No glare found

PV array 17 and OP 13

Receptor type: Observation Point
No glare found

PV array 17 and OP 14

Receptor type: Observation Point
No glare found

PV array 17 and OP 15

Receptor type: Observation Point
No glare found

PV array 17 and OP 16

Receptor type: Observation Point
No glare found

PV array 17 and OP 17

Receptor type: Observation Point
No glare found

PV array 17 and OP 18

Receptor type: Observation Point
No glare found

PV array 17 and OP 19

Receptor type: Observation Point
No glare found

PV array 17 and OP 20

Receptor type: Observation Point
No glare found

PV array 17 and OP 21

Receptor type: Observation Point
No glare found

PV array 17 and OP 22

Receptor type: Observation Point
No glare found

PV array 17 and OP 23

Receptor type: Observation Point
No glare found

PV array 17 and OP 24

Receptor type: Observation Point
No glare found

PV array 17 and OP 25

Receptor type: Observation Point
No glare found

PV array 17 and OP 26

Receptor type: Observation Point
No glare found

PV array 17 and OP 27

Receptor type: Observation Point
No glare found

PV array 17 and OP 28

Receptor type: Observation Point
No glare found

PV array 17 and OP 29

Receptor type: Observation Point
No glare found

PV array 17 and OP 30

Receptor type: Observation Point
No glare found

PV array 17 and OP 31

Receptor type: Observation Point
No glare found

PV array 17 and OP 32

Receptor type: Observation Point
No glare found

PV array 17 and OP 33

Receptor type: Observation Point
No glare found

PV array 17 and OP 34

Receptor type: Observation Point
No glare found

PV array 17 and OP 35

Receptor type: Observation Point
No glare found

PV array 17 and OP 36

Receptor type: Observation Point
No glare found

PV array 17 and OP 37

Receptor type: Observation Point
No glare found

PV array 17 and OP 38

Receptor type: Observation Point
No glare found

PV array 17 and OP 39

Receptor type: Observation Point
No glare found

PV array 17 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 18 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 18 and Dalton Road

Receptor type: Route

No glare found

PV array 18 and Goodsprings Road

Receptor type: Route

No glare found

PV array 18 and Grey Road

Receptor type: Route

No glare found

PV array 18 and Marion Road

Receptor type: Route

No glare found

PV array 18 and OP 1

Receptor type: Observation Point

No glare found

PV array 18 and OP 2

Receptor type: Observation Point

No glare found

PV array 18 and OP 3

Receptor type: Observation Point

No glare found

PV array 18 and OP 4

Receptor type: Observation Point

No glare found

PV array 18 and OP 5

Receptor type: Observation Point

No glare found

PV array 18 and OP 6

Receptor type: Observation Point

No glare found

PV array 18 and OP 7

Receptor type: Observation Point

No glare found

PV array 18 and OP 8

Receptor type: Observation Point

No glare found

PV array 18 and OP 9

Receptor type: Observation Point

No glare found

PV array 18 and OP 10

Receptor type: Observation Point

No glare found

PV array 18 and OP 11

Receptor type: Observation Point

No glare found

PV array 18 and OP 12

Receptor type: Observation Point

No glare found

PV array 18 and OP 13

Receptor type: Observation Point

No glare found

PV array 18 and OP 14

Receptor type: Observation Point

No glare found

PV array 18 and OP 15

Receptor type: Observation Point

No glare found

PV array 18 and OP 16

Receptor type: Observation Point

No glare found

PV array 18 and OP 17

Receptor type: Observation Point

No glare found

PV array 18 and OP 18

Receptor type: Observation Point

No glare found

PV array 18 and OP 19

Receptor type: Observation Point

No glare found

PV array 18 and OP 20

Receptor type: Observation Point

No glare found

PV array 18 and OP 21

Receptor type: Observation Point

No glare found

PV array 18 and OP 22

Receptor type: Observation Point

No glare found

PV array 18 and OP 23

Receptor type: Observation Point

No glare found

PV array 18 and OP 24

Receptor type: Observation Point

No glare found

PV array 18 and OP 25

Receptor type: Observation Point

No glare found

PV array 18 and OP 26

Receptor type: Observation Point

No glare found

PV array 18 and OP 27

Receptor type: Observation Point

No glare found

PV array 18 and OP 28

Receptor type: Observation Point

No glare found

PV array 18 and OP 29

Receptor type: Observation Point
No glare found

PV array 18 and OP 30

Receptor type: Observation Point
No glare found

PV array 18 and OP 31

Receptor type: Observation Point
No glare found

PV array 18 and OP 32

Receptor type: Observation Point
No glare found

PV array 18 and OP 33

Receptor type: Observation Point
No glare found

PV array 18 and OP 34

Receptor type: Observation Point
No glare found

PV array 18 and OP 35

Receptor type: Observation Point
No glare found

PV array 18 and OP 36

Receptor type: Observation Point
No glare found

PV array 18 and OP 37

Receptor type: Observation Point
No glare found

PV array 18 and OP 38

Receptor type: Observation Point
No glare found

PV array 18 and OP 39

Receptor type: Observation Point
No glare found

PV array 18 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 2 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 2 and Dalton Road

Receptor type: Route

No glare found

PV array 2 and Goodsprings Road

Receptor type: Route

No glare found

PV array 2 and Grey Road

Receptor type: Route

No glare found

PV array 2 and Marion Road

Receptor type: Route

No glare found

PV array 2 and OP 1

Receptor type: Observation Point

No glare found

PV array 2 and OP 2

Receptor type: Observation Point

No glare found

PV array 2 and OP 3

Receptor type: Observation Point

No glare found

PV array 2 and OP 4

Receptor type: Observation Point

No glare found

PV array 2 and OP 5

Receptor type: Observation Point

No glare found

PV array 2 and OP 6

Receptor type: Observation Point

No glare found

PV array 2 and OP 7

Receptor type: Observation Point

No glare found

PV array 2 and OP 8

Receptor type: Observation Point

No glare found

PV array 2 and OP 9

Receptor type: Observation Point
No glare found

PV array 2 and OP 10

Receptor type: Observation Point
No glare found

PV array 2 and OP 11

Receptor type: Observation Point
No glare found

PV array 2 and OP 12

Receptor type: Observation Point
No glare found

PV array 2 and OP 13

Receptor type: Observation Point
No glare found

PV array 2 and OP 14

Receptor type: Observation Point
No glare found

PV array 2 and OP 15

Receptor type: Observation Point
No glare found

PV array 2 and OP 16

Receptor type: Observation Point
No glare found

PV array 2 and OP 17

Receptor type: Observation Point
No glare found

PV array 2 and OP 18

Receptor type: Observation Point
No glare found

PV array 2 and OP 19

Receptor type: Observation Point
No glare found

PV array 2 and OP 20

Receptor type: Observation Point
No glare found

PV array 2 and OP 21

Receptor type: Observation Point
No glare found

PV array 2 and OP 22

Receptor type: Observation Point
No glare found

PV array 2 and OP 23

Receptor type: Observation Point
No glare found

PV array 2 and OP 24

Receptor type: Observation Point
No glare found

PV array 2 and OP 25

Receptor type: Observation Point
No glare found

PV array 2 and OP 26

Receptor type: Observation Point
No glare found

PV array 2 and OP 27

Receptor type: Observation Point
No glare found

PV array 2 and OP 28

Receptor type: Observation Point
No glare found

PV array 2 and OP 29

Receptor type: Observation Point
No glare found

PV array 2 and OP 30

Receptor type: Observation Point
No glare found

PV array 2 and OP 31

Receptor type: Observation Point
No glare found

PV array 2 and OP 32

Receptor type: Observation Point
No glare found

PV array 2 and OP 33

Receptor type: Observation Point
No glare found

PV array 2 and OP 34

Receptor type: Observation Point
No glare found

PV array 2 and OP 35

Receptor type: Observation Point
No glare found

PV array 2 and OP 36

Receptor type: Observation Point
No glare found

PV array 2 and OP 37

Receptor type: Observation Point
No glare found

PV array 2 and OP 38

Receptor type: Observation Point
No glare found

PV array 2 and OP 39

Receptor type: Observation Point
No glare found

PV array 2 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 3 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 3 and Dalton Road

Receptor type: Route

No glare found

PV array 3 and Goodsprings Road

Receptor type: Route

No glare found

PV array 3 and Grey Road

Receptor type: Route

No glare found

PV array 3 and Marion Road

Receptor type: Route

No glare found

PV array 3 and OP 1

Receptor type: Observation Point

No glare found

PV array 3 and OP 2

Receptor type: Observation Point

No glare found

PV array 3 and OP 3

Receptor type: Observation Point

No glare found

PV array 3 and OP 4

Receptor type: Observation Point

No glare found

PV array 3 and OP 5

Receptor type: Observation Point

No glare found

PV array 3 and OP 6

Receptor type: Observation Point

No glare found

PV array 3 and OP 7

Receptor type: Observation Point

No glare found

PV array 3 and OP 8

Receptor type: Observation Point

No glare found

PV array 3 and OP 9

Receptor type: Observation Point

No glare found

PV array 3 and OP 10

Receptor type: Observation Point

No glare found

PV array 3 and OP 11

Receptor type: Observation Point

No glare found

PV array 3 and OP 12

Receptor type: Observation Point

No glare found

PV array 3 and OP 13

Receptor type: Observation Point

No glare found

PV array 3 and OP 14

Receptor type: Observation Point

No glare found

PV array 3 and OP 15

Receptor type: Observation Point

No glare found

PV array 3 and OP 16

Receptor type: Observation Point

No glare found

PV array 3 and OP 17

Receptor type: Observation Point

No glare found

PV array 3 and OP 18

Receptor type: Observation Point

No glare found

PV array 3 and OP 19

Receptor type: Observation Point

No glare found

PV array 3 and OP 20

Receptor type: Observation Point

No glare found

PV array 3 and OP 21

Receptor type: Observation Point

No glare found

PV array 3 and OP 22

Receptor type: Observation Point

No glare found

PV array 3 and OP 23

Receptor type: Observation Point

No glare found

PV array 3 and OP 24

Receptor type: Observation Point

No glare found

PV array 3 and OP 25

Receptor type: Observation Point

No glare found

PV array 3 and OP 26

Receptor type: Observation Point

No glare found

PV array 3 and OP 27

Receptor type: Observation Point

No glare found

PV array 3 and OP 28

Receptor type: Observation Point

No glare found

PV array 3 and OP 29

Receptor type: Observation Point
No glare found

PV array 3 and OP 30

Receptor type: Observation Point
No glare found

PV array 3 and OP 31

Receptor type: Observation Point
No glare found

PV array 3 and OP 32

Receptor type: Observation Point
No glare found

PV array 3 and OP 33

Receptor type: Observation Point
No glare found

PV array 3 and OP 34

Receptor type: Observation Point
No glare found

PV array 3 and OP 35

Receptor type: Observation Point
No glare found

PV array 3 and OP 36

Receptor type: Observation Point
No glare found

PV array 3 and OP 37

Receptor type: Observation Point
No glare found

PV array 3 and OP 38

Receptor type: Observation Point
No glare found

PV array 3 and OP 39

Receptor type: Observation Point
No glare found

PV array 3 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 4 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 4 and Dalton Road

Receptor type: Route

No glare found

PV array 4 and Goodsprings Road

Receptor type: Route

No glare found

PV array 4 and Grey Road

Receptor type: Route

No glare found

PV array 4 and Marion Road

Receptor type: Route

No glare found

PV array 4 and OP 1

Receptor type: Observation Point

No glare found

PV array 4 and OP 2

Receptor type: Observation Point

No glare found

PV array 4 and OP 3

Receptor type: Observation Point

No glare found

PV array 4 and OP 4

Receptor type: Observation Point

No glare found

PV array 4 and OP 5

Receptor type: Observation Point

No glare found

PV array 4 and OP 6

Receptor type: Observation Point

No glare found

PV array 4 and OP 7

Receptor type: Observation Point

No glare found

PV array 4 and OP 8

Receptor type: Observation Point

No glare found

PV array 4 and OP 9

Receptor type: Observation Point
No glare found

PV array 4 and OP 10

Receptor type: Observation Point
No glare found

PV array 4 and OP 11

Receptor type: Observation Point
No glare found

PV array 4 and OP 12

Receptor type: Observation Point
No glare found

PV array 4 and OP 13

Receptor type: Observation Point
No glare found

PV array 4 and OP 14

Receptor type: Observation Point
No glare found

PV array 4 and OP 15

Receptor type: Observation Point
No glare found

PV array 4 and OP 16

Receptor type: Observation Point
No glare found

PV array 4 and OP 17

Receptor type: Observation Point
No glare found

PV array 4 and OP 18

Receptor type: Observation Point
No glare found

PV array 4 and OP 19

Receptor type: Observation Point
No glare found

PV array 4 and OP 20

Receptor type: Observation Point
No glare found

PV array 4 and OP 21

Receptor type: Observation Point
No glare found

PV array 4 and OP 22

Receptor type: Observation Point
No glare found

PV array 4 and OP 23

Receptor type: Observation Point
No glare found

PV array 4 and OP 24

Receptor type: Observation Point
No glare found

PV array 4 and OP 25

Receptor type: Observation Point
No glare found

PV array 4 and OP 26

Receptor type: Observation Point
No glare found

PV array 4 and OP 27

Receptor type: Observation Point
No glare found

PV array 4 and OP 28

Receptor type: Observation Point
No glare found

PV array 4 and OP 29

Receptor type: Observation Point
No glare found

PV array 4 and OP 30

Receptor type: Observation Point
No glare found

PV array 4 and OP 31

Receptor type: Observation Point
No glare found

PV array 4 and OP 32

Receptor type: Observation Point
No glare found

PV array 4 and OP 33

Receptor type: Observation Point
No glare found

PV array 4 and OP 34

Receptor type: Observation Point
No glare found

PV array 4 and OP 35

Receptor type: Observation Point
No glare found

PV array 4 and OP 36

Receptor type: Observation Point
No glare found

PV array 4 and OP 37

Receptor type: Observation Point
No glare found

PV array 4 and OP 38

Receptor type: Observation Point
No glare found

PV array 4 and OP 39

Receptor type: Observation Point
No glare found

PV array 4 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 5 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 5 and Dalton Road

Receptor type: Route

No glare found

PV array 5 and Goodsprings Road

Receptor type: Route

No glare found

PV array 5 and Grey Road

Receptor type: Route

No glare found

PV array 5 and Marion Road

Receptor type: Route

No glare found

PV array 5 and OP 1

Receptor type: Observation Point

No glare found

PV array 5 and OP 2

Receptor type: Observation Point

No glare found

PV array 5 and OP 3

Receptor type: Observation Point

No glare found

PV array 5 and OP 4

Receptor type: Observation Point

No glare found

PV array 5 and OP 5

Receptor type: Observation Point

No glare found

PV array 5 and OP 6

Receptor type: Observation Point

No glare found

PV array 5 and OP 7

Receptor type: Observation Point

No glare found

PV array 5 and OP 8

Receptor type: Observation Point

No glare found

PV array 5 and OP 9

Receptor type: Observation Point
No glare found

PV array 5 and OP 10

Receptor type: Observation Point
No glare found

PV array 5 and OP 11

Receptor type: Observation Point
No glare found

PV array 5 and OP 12

Receptor type: Observation Point
No glare found

PV array 5 and OP 13

Receptor type: Observation Point
No glare found

PV array 5 and OP 14

Receptor type: Observation Point
No glare found

PV array 5 and OP 15

Receptor type: Observation Point
No glare found

PV array 5 and OP 16

Receptor type: Observation Point
No glare found

PV array 5 and OP 17

Receptor type: Observation Point
No glare found

PV array 5 and OP 18

Receptor type: Observation Point
No glare found

PV array 5 and OP 19

Receptor type: Observation Point
No glare found

PV array 5 and OP 20

Receptor type: Observation Point
No glare found

PV array 5 and OP 21

Receptor type: Observation Point
No glare found

PV array 5 and OP 22

Receptor type: Observation Point
No glare found

PV array 5 and OP 23

Receptor type: Observation Point
No glare found

PV array 5 and OP 24

Receptor type: Observation Point
No glare found

PV array 5 and OP 25

Receptor type: Observation Point
No glare found

PV array 5 and OP 26

Receptor type: Observation Point
No glare found

PV array 5 and OP 27

Receptor type: Observation Point
No glare found

PV array 5 and OP 28

Receptor type: Observation Point
No glare found

PV array 5 and OP 29

Receptor type: Observation Point

No glare found

PV array 5 and OP 30

Receptor type: Observation Point

No glare found

PV array 5 and OP 31

Receptor type: Observation Point

No glare found

PV array 5 and OP 32

Receptor type: Observation Point

No glare found

PV array 5 and OP 33

Receptor type: Observation Point

No glare found

PV array 5 and OP 34

Receptor type: Observation Point

No glare found

PV array 5 and OP 35

Receptor type: Observation Point

No glare found

PV array 5 and OP 36

Receptor type: Observation Point

No glare found

PV array 5 and OP 37

Receptor type: Observation Point

No glare found

PV array 5 and OP 38

Receptor type: Observation Point

No glare found

PV array 5 and OP 39

Receptor type: Observation Point

No glare found

PV array 5 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 6 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 6 and Dalton Road

Receptor type: Route

No glare found

PV array 6 and Goodsprings Road

Receptor type: Route

No glare found

PV array 6 and Grey Road

Receptor type: Route

No glare found

PV array 6 and Marion Road

Receptor type: Route

No glare found

PV array 6 and OP 1

Receptor type: Observation Point

No glare found

PV array 6 and OP 2

Receptor type: Observation Point

No glare found

PV array 6 and OP 3

Receptor type: Observation Point

No glare found

PV array 6 and OP 4

Receptor type: Observation Point

No glare found

PV array 6 and OP 5

Receptor type: Observation Point

No glare found

PV array 6 and OP 6

Receptor type: Observation Point

No glare found

PV array 6 and OP 7

Receptor type: Observation Point

No glare found

PV array 6 and OP 8

Receptor type: Observation Point

No glare found

PV array 6 and OP 9

Receptor type: Observation Point
No glare found

PV array 6 and OP 10

Receptor type: Observation Point
No glare found

PV array 6 and OP 11

Receptor type: Observation Point
No glare found

PV array 6 and OP 12

Receptor type: Observation Point
No glare found

PV array 6 and OP 13

Receptor type: Observation Point
No glare found

PV array 6 and OP 14

Receptor type: Observation Point
No glare found

PV array 6 and OP 15

Receptor type: Observation Point
No glare found

PV array 6 and OP 16

Receptor type: Observation Point
No glare found

PV array 6 and OP 17

Receptor type: Observation Point
No glare found

PV array 6 and OP 18

Receptor type: Observation Point
No glare found

PV array 6 and OP 19

Receptor type: Observation Point
No glare found

PV array 6 and OP 20

Receptor type: Observation Point
No glare found

PV array 6 and OP 21

Receptor type: Observation Point
No glare found

PV array 6 and OP 22

Receptor type: Observation Point
No glare found

PV array 6 and OP 23

Receptor type: Observation Point
No glare found

PV array 6 and OP 24

Receptor type: Observation Point
No glare found

PV array 6 and OP 25

Receptor type: Observation Point
No glare found

PV array 6 and OP 26

Receptor type: Observation Point
No glare found

PV array 6 and OP 27

Receptor type: Observation Point
No glare found

PV array 6 and OP 28

Receptor type: Observation Point
No glare found

PV array 6 and OP 29

Receptor type: Observation Point
No glare found

PV array 6 and OP 30

Receptor type: Observation Point
No glare found

PV array 6 and OP 31

Receptor type: Observation Point
No glare found

PV array 6 and OP 32

Receptor type: Observation Point
No glare found

PV array 6 and OP 33

Receptor type: Observation Point
No glare found

PV array 6 and OP 34

Receptor type: Observation Point
No glare found

PV array 6 and OP 35

Receptor type: Observation Point
No glare found

PV array 6 and OP 36

Receptor type: Observation Point
No glare found

PV array 6 and OP 37

Receptor type: Observation Point
No glare found

PV array 6 and OP 38

Receptor type: Observation Point
No glare found

PV array 6 and OP 39

Receptor type: Observation Point
No glare found

PV array 6 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 7 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 7 and Dalton Road

Receptor type: Route

No glare found

PV array 7 and Goodsprings Road

Receptor type: Route

No glare found

PV array 7 and Grey Road

Receptor type: Route

No glare found

PV array 7 and Marion Road

Receptor type: Route

No glare found

PV array 7 and OP 1

Receptor type: Observation Point

No glare found

PV array 7 and OP 2

Receptor type: Observation Point

No glare found

PV array 7 and OP 3

Receptor type: Observation Point

No glare found

PV array 7 and OP 4

Receptor type: Observation Point

No glare found

PV array 7 and OP 5

Receptor type: Observation Point

No glare found

PV array 7 and OP 6

Receptor type: Observation Point

No glare found

PV array 7 and OP 7

Receptor type: Observation Point

No glare found

PV array 7 and OP 8

Receptor type: Observation Point

No glare found

PV array 7 and OP 9

Receptor type: Observation Point
No glare found

PV array 7 and OP 10

Receptor type: Observation Point
No glare found

PV array 7 and OP 11

Receptor type: Observation Point
No glare found

PV array 7 and OP 12

Receptor type: Observation Point
No glare found

PV array 7 and OP 13

Receptor type: Observation Point
No glare found

PV array 7 and OP 14

Receptor type: Observation Point
No glare found

PV array 7 and OP 15

Receptor type: Observation Point
No glare found

PV array 7 and OP 16

Receptor type: Observation Point
No glare found

PV array 7 and OP 17

Receptor type: Observation Point
No glare found

PV array 7 and OP 18

Receptor type: Observation Point
No glare found

PV array 7 and OP 19

Receptor type: Observation Point
No glare found

PV array 7 and OP 20

Receptor type: Observation Point
No glare found

PV array 7 and OP 21

Receptor type: Observation Point
No glare found

PV array 7 and OP 22

Receptor type: Observation Point
No glare found

PV array 7 and OP 23

Receptor type: Observation Point
No glare found

PV array 7 and OP 24

Receptor type: Observation Point
No glare found

PV array 7 and OP 25

Receptor type: Observation Point
No glare found

PV array 7 and OP 26

Receptor type: Observation Point
No glare found

PV array 7 and OP 27

Receptor type: Observation Point
No glare found

PV array 7 and OP 28

Receptor type: Observation Point
No glare found

PV array 7 and OP 29

Receptor type: Observation Point

No glare found

PV array 7 and OP 30

Receptor type: Observation Point

No glare found

PV array 7 and OP 31

Receptor type: Observation Point

No glare found

PV array 7 and OP 32

Receptor type: Observation Point

No glare found

PV array 7 and OP 33

Receptor type: Observation Point

No glare found

PV array 7 and OP 34

Receptor type: Observation Point

No glare found

PV array 7 and OP 35

Receptor type: Observation Point

No glare found

PV array 7 and OP 36

Receptor type: Observation Point

No glare found

PV array 7 and OP 37

Receptor type: Observation Point

No glare found

PV array 7 and OP 38

Receptor type: Observation Point

No glare found

PV array 7 and OP 39

Receptor type: Observation Point

No glare found

PV array 7 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 8 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 8 and Coleman Crider Road

Receptor type: Route
No glare found

PV array 8 and Dalton Road

Receptor type: Route
No glare found

PV array 8 and Goodsprings Road

Receptor type: Route
No glare found

PV array 8 and Grey Road

Receptor type: Route
No glare found

PV array 8 and Marion Road

Receptor type: Route
No glare found

PV array 8 and OP 1

Receptor type: Observation Point
No glare found

PV array 8 and OP 2

Receptor type: Observation Point
No glare found

PV array 8 and OP 3

Receptor type: Observation Point
No glare found

PV array 8 and OP 4

Receptor type: Observation Point
No glare found

PV array 8 and OP 5

Receptor type: Observation Point
No glare found

PV array 8 and OP 6

Receptor type: Observation Point
No glare found

PV array 8 and OP 7

Receptor type: Observation Point
No glare found

PV array 8 and OP 8

Receptor type: Observation Point
No glare found

PV array 8 and OP 9

Receptor type: Observation Point
No glare found

PV array 8 and OP 10

Receptor type: Observation Point
No glare found

PV array 8 and OP 11

Receptor type: Observation Point
No glare found

PV array 8 and OP 12

Receptor type: Observation Point
No glare found

PV array 8 and OP 13

Receptor type: Observation Point
No glare found

PV array 8 and OP 14

Receptor type: Observation Point
No glare found

PV array 8 and OP 15

Receptor type: Observation Point
No glare found

PV array 8 and OP 16

Receptor type: Observation Point
No glare found

PV array 8 and OP 17

Receptor type: Observation Point
No glare found

PV array 8 and OP 18

Receptor type: Observation Point
No glare found

PV array 8 and OP 19

Receptor type: Observation Point
No glare found

PV array 8 and OP 20

Receptor type: Observation Point
No glare found

PV array 8 and OP 21

Receptor type: Observation Point
No glare found

PV array 8 and OP 22

Receptor type: Observation Point
No glare found

PV array 8 and OP 23

Receptor type: Observation Point
No glare found

PV array 8 and OP 24

Receptor type: Observation Point
No glare found

PV array 8 and OP 25

Receptor type: Observation Point
No glare found

PV array 8 and OP 26

Receptor type: Observation Point
No glare found

PV array 8 and OP 27

Receptor type: Observation Point
No glare found

PV array 8 and OP 28

Receptor type: Observation Point
No glare found

PV array 8 and OP 29

Receptor type: Observation Point
No glare found

PV array 8 and OP 30

Receptor type: Observation Point
No glare found

PV array 8 and OP 31

Receptor type: Observation Point
No glare found

PV array 8 and OP 32

Receptor type: Observation Point
No glare found

PV array 8 and OP 33

Receptor type: Observation Point
No glare found

PV array 8 and OP 34

Receptor type: Observation Point
No glare found

PV array 8 and OP 35

Receptor type: Observation Point
No glare found

PV array 8 and OP 36

Receptor type: Observation Point
No glare found

PV array 8 and OP 37

Receptor type: Observation Point
No glare found

PV array 8 and OP 38

Receptor type: Observation Point
No glare found

PV array 8 and OP 39

Receptor type: Observation Point
No glare found

PV array 8 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 9 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 9 and Dalton Road

Receptor type: Route

No glare found

PV array 9 and Goodsprings Road

Receptor type: Route

No glare found

PV array 9 and Grey Road

Receptor type: Route

No glare found

PV array 9 and Marion Road

Receptor type: Route

No glare found

PV array 9 and OP 1

Receptor type: Observation Point

No glare found

PV array 9 and OP 2

Receptor type: Observation Point

No glare found

PV array 9 and OP 3

Receptor type: Observation Point

No glare found

PV array 9 and OP 4

Receptor type: Observation Point

No glare found

PV array 9 and OP 5

Receptor type: Observation Point

No glare found

PV array 9 and OP 6

Receptor type: Observation Point

No glare found

PV array 9 and OP 7

Receptor type: Observation Point

No glare found

PV array 9 and OP 8

Receptor type: Observation Point

No glare found

PV array 9 and OP 9

Receptor type: Observation Point
No glare found

PV array 9 and OP 10

Receptor type: Observation Point
No glare found

PV array 9 and OP 11

Receptor type: Observation Point
No glare found

PV array 9 and OP 12

Receptor type: Observation Point
No glare found

PV array 9 and OP 13

Receptor type: Observation Point
No glare found

PV array 9 and OP 14

Receptor type: Observation Point
No glare found

PV array 9 and OP 15

Receptor type: Observation Point
No glare found

PV array 9 and OP 16

Receptor type: Observation Point
No glare found

PV array 9 and OP 17

Receptor type: Observation Point
No glare found

PV array 9 and OP 18

Receptor type: Observation Point
No glare found

PV array 9 and OP 19

Receptor type: Observation Point
No glare found

PV array 9 and OP 20

Receptor type: Observation Point
No glare found

PV array 9 and OP 21

Receptor type: Observation Point
No glare found

PV array 9 and OP 22

Receptor type: Observation Point
No glare found

PV array 9 and OP 23

Receptor type: Observation Point
No glare found

PV array 9 and OP 24

Receptor type: Observation Point
No glare found

PV array 9 and OP 25

Receptor type: Observation Point
No glare found

PV array 9 and OP 26

Receptor type: Observation Point
No glare found

PV array 9 and OP 27

Receptor type: Observation Point
No glare found

PV array 9 and OP 28

Receptor type: Observation Point
No glare found

PV array 9 and OP 29

Receptor type: Observation Point
No glare found

PV array 9 and OP 30

Receptor type: Observation Point
No glare found

PV array 9 and OP 31

Receptor type: Observation Point
No glare found

PV array 9 and OP 32

Receptor type: Observation Point
No glare found

PV array 9 and OP 33

Receptor type: Observation Point
No glare found

PV array 9 and OP 34

Receptor type: Observation Point
No glare found

PV array 9 and OP 35

Receptor type: Observation Point
No glare found

PV array 9 and OP 36

Receptor type: Observation Point
No glare found

PV array 9 and OP 37

Receptor type: Observation Point
No glare found

PV array 9 and OP 38

Receptor type: Observation Point
No glare found

PV array 9 and OP 39

Receptor type: Observation Point
No glare found

PV array 9 and OP 40

Receptor type: Observation Point
No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FORGESOLAR GLARE ANALYSIS

Project: **Golden Solar, LLC**

Single Axis Tracking

Site configuration: **Golden Solar LLC Arrays**

Site description: Single Axis Tracker

Created 05 Jul, 2022
Updated 06 Jul, 2022
Time-step 1 minute
Timezone offset UTC-6
Site ID 71834.12518
Category 10 MW to 100 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

Component Data

PV Arrays

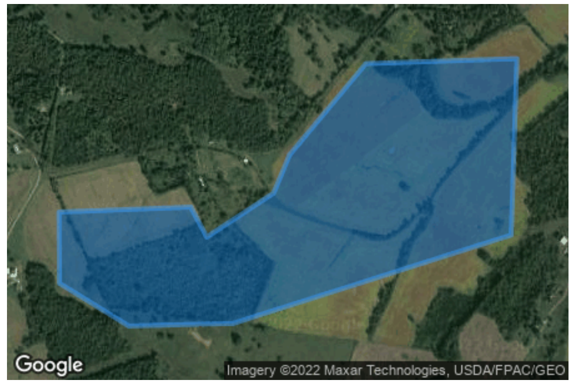
Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.168891	-88.015151	471.85	20.00	491.85
2	37.170806	-88.015129	481.62	20.00	501.62
3	37.171849	-88.014700	490.78	20.00	510.78
4	37.174700	-88.008339	521.21	20.00	541.21
5	37.173503	-88.007674	513.00	20.00	533.00
6	37.168918	-88.013730	479.01	20.00	499.02

Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

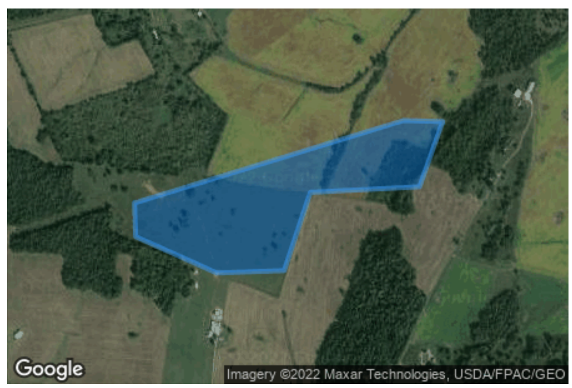
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.160249	-87.974446	472.55	20.00	492.55
2	37.161506	-87.974468	464.01	20.00	484.01
3	37.161514	-87.973277	478.64	20.00	498.64
4	37.160274	-87.973234	470.75	20.00	490.75

Name: PV array 11
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



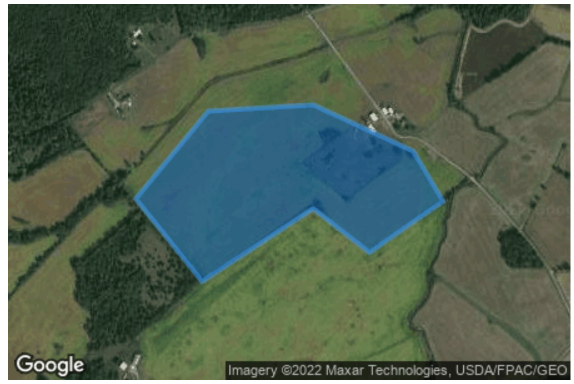
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174116	-87.968552	551.47	20.00	571.47
2	37.174252	-87.964024	504.07	20.00	524.07
3	37.173432	-87.963467	501.71	20.00	521.71
4	37.174628	-87.961171	483.18	20.00	503.18
5	37.175671	-87.960624	489.99	20.00	509.99
6	37.178165	-87.957994	467.27	20.00	487.27
7	37.178302	-87.952801	453.81	20.00	473.81
8	37.173488	-87.952998	469.68	20.00	489.68
9	37.171075	-87.962568	510.77	20.00	530.77
10	37.171007	-87.966151	592.62	20.00	612.62
11	37.172170	-87.968533	564.99	20.00	585.00

Name: PV array 12
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.170340	-87.964370	546.04	20.00	566.04
2	37.172597	-87.955100	478.60	20.00	498.60
3	37.172563	-87.953770	474.48	20.00	494.48
4	37.170785	-87.954564	504.97	20.00	524.97
5	37.170631	-87.958319	473.30	20.00	493.30
6	37.168495	-87.959218	483.20	20.00	503.20
7	37.168427	-87.961536	517.25	20.00	537.25
8	37.169418	-87.964325	571.83	20.00	591.83

Name: PV array 13
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

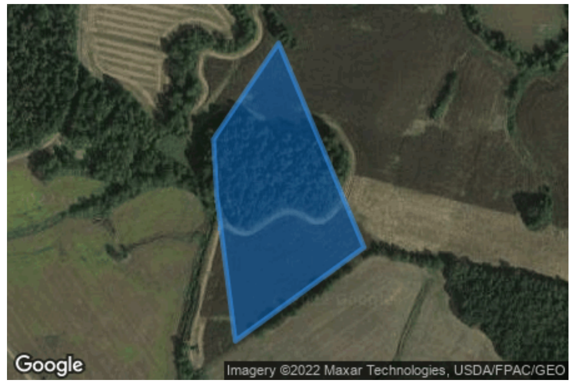


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.177897	-87.950761	448.40	20.00	468.40
2	37.180291	-87.948272	436.80	20.00	456.81
3	37.180462	-87.944667	440.68	20.00	460.68
4	37.179197	-87.941234	433.76	20.00	453.76
5	37.177829	-87.940204	433.16	20.00	453.17
6	37.176427	-87.942736	444.01	20.00	464.02
7	37.177624	-87.944667	462.20	20.00	482.20
8	37.175640	-87.948487	468.20	20.00	488.20

Name: PV array 14
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.181835	-87.943033	427.24	20.00	447.24
2	37.181886	-87.941317	426.32	20.00	446.32
3	37.181570	-87.940458	427.08	20.00	447.08
4	37.180595	-87.940426	426.70	20.00	446.70
5	37.180629	-87.942368	444.36	20.00	464.36
6	37.181202	-87.943001	435.59	20.00	455.60

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

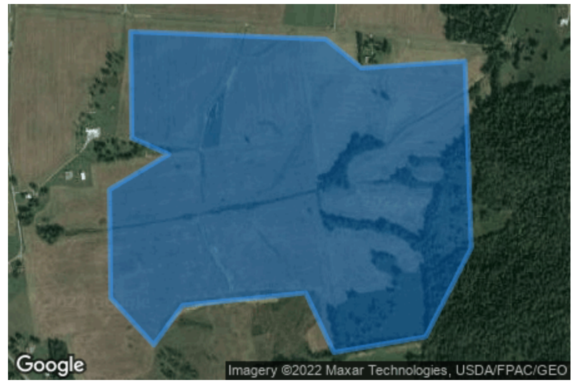


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.185047	-87.938256	423.20	20.00	443.20
2	37.182258	-87.936787	477.58	20.00	497.58
3	37.180981	-87.939002	424.96	20.00	444.96
4	37.182972	-87.939324	432.15	20.00	452.15
5	37.183733	-87.939378	431.87	20.00	451.87

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.161475	-87.972767	474.48	20.00	494.48
2	37.163750	-87.972767	469.77	20.00	489.77
3	37.166588	-87.971436	472.74	20.00	492.74
4	37.166520	-87.970492	481.54	20.00	501.54
5	37.165921	-87.969098	479.22	20.00	499.22
6	37.164690	-87.968904	479.55	20.00	499.55
7	37.161547	-87.970612	477.48	20.00	497.48

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

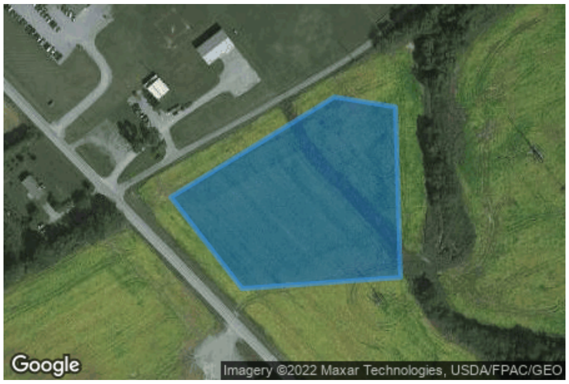


Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.164745	-87.968745	478.76	20.00	498.76
2	37.164540	-87.962050	504.71	20.00	524.71
3	37.163753	-87.960827	504.92	20.00	524.92
4	37.163941	-87.957265	515.12	20.00	535.12
5	37.158845	-87.957051	514.02	20.00	534.02
6	37.156417	-87.958617	557.54	20.00	577.54
7	37.155989	-87.961771	541.38	20.00	561.38
8	37.157614	-87.962737	503.68	20.00	523.68
9	37.157272	-87.966964	517.20	20.00	537.20
10	37.156195	-87.967951	520.73	20.00	540.73
11	37.157477	-87.969432	473.56	20.00	493.56
12	37.160436	-87.969475	468.78	20.00	488.78
13	37.161393	-87.967436	481.86	20.00	501.86
14	37.161838	-87.968702	482.70	20.00	502.70

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.171122	-87.971084	488.15	20.00	508.15
2	37.169951	-87.971062	480.08	20.00	500.08
3	37.169925	-87.971921	475.90	20.00	495.90
4	37.171148	-87.971642	483.99	20.00	503.99

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174931	-88.007918	519.01	20.00	539.01
2	37.175614	-88.006513	519.11	20.00	539.11
3	37.175546	-88.005987	514.71	20.00	534.71
4	37.174383	-88.005944	512.69	20.00	532.69
5	37.174307	-88.007307	517.12	20.00	537.12

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.175533	-88.003872	534.54	20.00	554.54
2	37.175601	-88.001169	547.96	20.00	567.96
3	37.176353	-88.000546	563.63	20.00	583.63
4	37.176353	-87.999280	559.12	20.00	579.12
5	37.175601	-87.999152	536.76	20.00	556.76
6	37.174507	-88.000890	536.69	20.00	556.69
7	37.174404	-88.003078	526.07	20.00	546.08
8	37.175088	-88.004473	527.58	20.00	547.58

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172826	-88.005052	511.13	20.00	531.13
2	37.173561	-88.004430	525.47	20.00	545.47
3	37.173544	-88.001812	552.90	20.00	572.90
4	37.172518	-88.001748	567.83	20.00	587.83
5	37.171424	-88.003035	543.66	20.00	563.66
6	37.171389	-88.003744	530.76	20.00	550.76

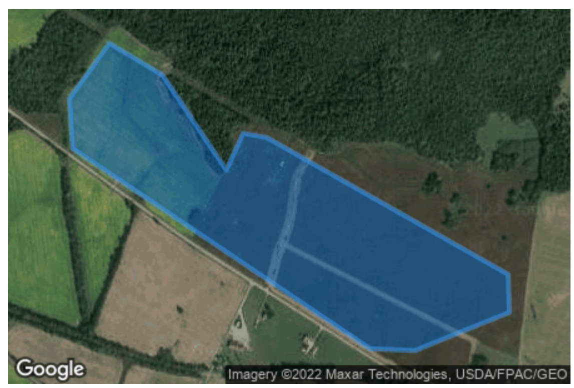
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172811	-88.006473	512.93	20.00	532.93
2	37.171450	-88.004681	520.85	20.00	540.85
3	37.169796	-88.003680	517.79	20.00	537.80
4	37.168659	-88.003723	492.79	20.00	512.79
5	37.168616	-88.004850	510.62	20.00	530.62
6	37.169522	-88.008165	553.59	20.00	573.59
7	37.170633	-88.008980	533.26	20.00	553.26
8	37.171600	-88.009109	536.21	20.00	556.21
9	37.172796	-88.007510	515.32	20.00	535.32

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

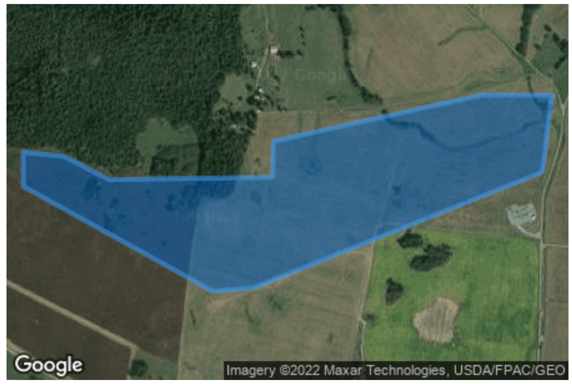
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169670	-88.001931	489.38	20.00	509.38
2	37.168037	-87.998948	470.46	20.00	490.46
3	37.167093	-87.998909	470.72	20.00	490.72
4	37.164956	-87.999891	464.22	20.00	484.22
5	37.164887	-88.001983	477.72	20.00	497.72
6	37.165768	-88.004880	482.47	20.00	502.47
7	37.169658	-88.003013	503.02	20.00	523.02

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



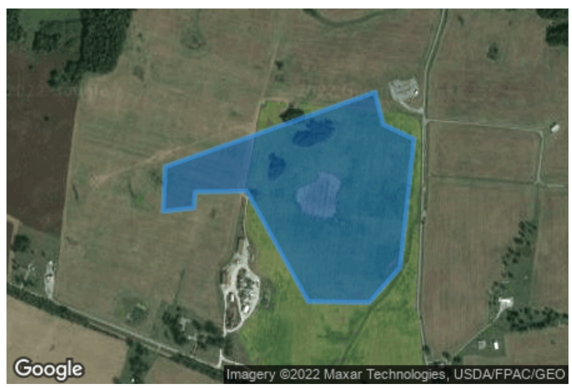
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.172323	-87.999389	502.73	20.00	522.73
2	37.171451	-87.997565	499.86	20.00	519.86
3	37.168852	-87.995377	487.33	20.00	507.33
4	37.169861	-87.994797	480.27	20.00	500.27
5	37.169742	-87.993982	476.74	20.00	496.74
6	37.166001	-87.985699	475.20	20.00	495.20
7	37.164957	-87.985656	466.45	20.00	486.45
8	37.163914	-87.988896	461.37	20.00	481.37
9	37.163966	-87.990441	466.93	20.00	486.93
10	37.169443	-88.000651	474.96	20.00	494.96
11	37.170811	-88.000759	487.00	20.00	507.00

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.169375	-87.989257	513.51	20.00	533.51
2	37.168742	-87.987712	494.91	20.00	514.91
3	37.168810	-87.982090	487.75	20.00	507.75
4	37.169785	-87.982069	501.67	20.00	521.67
5	37.171050	-87.974902	489.24	20.00	509.24
6	37.171050	-87.972499	476.79	20.00	496.79
7	37.168947	-87.972821	478.18	20.00	498.18
8	37.165784	-87.982760	473.19	20.00	493.19
9	37.165699	-87.984159	482.70	20.00	502.70
10	37.168555	-87.990661	488.12	20.00	508.13
11	37.169495	-87.990661	507.72	20.00	527.72

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.165689	-87.981759	468.95	20.00	488.95
2	37.167728	-87.974539	479.62	20.00	499.62
3	37.166847	-87.974260	488.47	20.00	508.47
4	37.166445	-87.973198	476.23	20.00	496.23
5	37.162928	-87.973679	465.27	20.00	485.27
6	37.161979	-87.974741	465.48	20.00	485.48
7	37.162005	-87.976844	487.94	20.00	507.94
8	37.165021	-87.978960	472.59	20.00	492.59
9	37.164995	-87.980719	472.96	20.00	492.96
10	37.164559	-87.980762	475.94	20.00	495.94
11	37.164465	-87.981824	472.61	20.00	492.61

Route Receptors

Name: Coleman Crider Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174988	-87.969214	551.26	6.00	557.26
2	37.175046	-87.968742	553.27	6.00	559.27
3	37.175398	-87.966949	524.83	6.00	530.83
4	37.175653	-87.965463	515.01	6.00	521.01
5	37.175843	-87.964479	508.41	6.00	514.41
6	37.175913	-87.963889	503.65	6.00	509.65
7	37.175918	-87.963577	500.76	6.00	506.76
8	37.175819	-87.963084	500.99	6.00	506.99
9	37.175681	-87.962156	499.41	6.00	505.41
10	37.175648	-87.961449	500.58	6.00	506.58
11	37.175723	-87.961052	498.75	6.00	504.75
12	37.175973	-87.960556	498.57	6.00	504.57
13	37.176386	-87.960116	502.58	6.00	508.58
14	37.176914	-87.959722	493.71	6.00	499.71
15	37.177162	-87.959480	489.10	6.00	495.10
16	37.177377	-87.959295	481.29	6.00	487.29
17	37.177798	-87.958864	474.72	6.00	480.72
18	37.178420	-87.958247	468.90	6.00	474.90
19	37.178841	-87.957815	469.40	6.00	475.40
20	37.179700	-87.956922	476.54	6.00	482.54
21	37.179618	-87.954528	486.14	6.00	492.14
22	37.179977	-87.953411	481.47	6.00	487.47
23	37.180590	-87.952134	464.66	6.00	470.66
24	37.181242	-87.950862	458.72	6.00	464.72
25	37.182327	-87.949157	455.01	6.00	461.01
26	37.182926	-87.944723	431.46	6.00	437.46
27	37.183635	-87.942236	441.87	6.00	447.87
28	37.183808	-87.942049	447.27	6.00	453.27
29	37.184148	-87.941866	450.58	6.00	456.58
30	37.184832	-87.941679	431.60	6.00	437.60
31	37.186155	-87.941566	425.73	6.00	431.73
32	37.186422	-87.941228	428.00	6.00	434.00
33	37.186649	-87.941024	428.10	6.00	434.10
34	37.187711	-87.940449	452.24	6.00	458.24

Name: Dalton Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.174978	-88.008450	520.73	6.00	526.73
2	37.175722	-88.006760	519.24	6.00	525.24
3	37.176577	-88.005285	524.14	6.00	530.14
4	37.176701	-88.004711	525.48	6.00	531.48
5	37.176927	-88.003885	532.00	6.00	538.00
6	37.176876	-88.001975	592.23	6.00	598.23
7	37.177513	-88.000162	624.48	6.00	630.48
8	37.178244	-87.999148	656.77	6.00	662.77
9	37.178988	-87.998603	693.63	6.00	699.63
10	37.179936	-87.998016	708.11	6.00	714.11

Name: Goodsprings Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.157570	-87.974522	463.20	6.00	469.20
2	37.158617	-87.972569	458.04	6.00	464.04
3	37.158805	-87.972462	459.65	6.00	465.65
4	37.159316	-87.972542	466.35	6.00	472.35
5	37.159844	-87.972644	472.03	6.00	478.03
6	37.160840	-87.972848	471.41	6.00	477.41
7	37.161862	-87.973052	467.94	6.00	473.94
8	37.162773	-87.972993	470.92	6.00	476.92
9	37.164217	-87.972918	468.11	6.00	474.11
10	37.165702	-87.972871	470.46	6.00	476.46
11	37.167078	-87.972833	473.93	6.00	479.93
12	37.167706	-87.972804	474.39	6.00	480.39
13	37.168326	-87.972763	475.69	6.00	481.69
14	37.168822	-87.972565	476.24	6.00	482.24
15	37.169656	-87.972216	477.33	6.00	483.33
16	37.170028	-87.972138	479.29	6.00	485.29
17	37.170365	-87.972103	478.87	6.00	484.87
18	37.170831	-87.971991	478.68	6.00	484.68
19	37.171410	-87.971642	483.45	6.00	489.45
20	37.171990	-87.971272	491.67	6.00	497.67
21	37.173101	-87.970521	508.14	6.00	514.14
22	37.173917	-87.969990	529.66	6.00	535.66
23	37.174862	-87.969271	548.17	6.00	554.17
24	37.176063	-87.968949	574.93	6.00	580.93
25	37.176555	-87.968810	584.21	6.00	590.21

Name: Grey Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.167000	-87.972802	474.32	6.00	480.32
2	37.166606	-87.968747	486.48	6.00	492.48
3	37.165221	-87.968876	479.06	6.00	485.06
4	37.164332	-87.956216	543.31	6.00	549.31
5	37.168607	-87.953523	532.09	6.00	538.09
6	37.172369	-87.950916	493.22	6.00	499.22

Name: Marion Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.179023	-88.013394	492.84	6.00	498.84
2	37.174923	-88.008413	521.38	6.00	527.38
3	37.171084	-88.003746	530.86	6.00	536.86
4	37.170054	-88.002115	497.31	6.00	503.31
5	37.169045	-88.000308	474.91	6.00	480.91
6	37.166074	-87.995029	465.64	6.00	471.64
7	37.163308	-87.989600	457.21	6.00	463.21
8	37.161761	-87.984847	470.35	6.00	476.35
9	37.160923	-87.982353	475.94	6.00	481.94
10	37.160205	-87.979901	473.82	6.00	479.82
11	37.159568	-87.977994	468.47	6.00	474.47
12	37.159042	-87.976774	464.82	6.00	470.82
13	37.158204	-87.975352	461.23	6.00	467.23
14	37.157321	-87.974263	462.91	6.00	468.91
15	37.156079	-87.973110	463.83	6.00	469.83
16	37.152492	-87.969602	488.18	6.00	494.18
17	37.151603	-87.968709	495.56	6.00	501.56
18	37.150889	-87.967907	490.24	6.00	496.24
19	37.150444	-87.967126	493.40	6.00	499.40
20	37.150132	-87.966458	494.76	6.00	500.76
21	37.149431	-87.964774	485.99	6.00	491.99
22	37.149260	-87.963765	490.35	6.00	496.35
23	37.149366	-87.962928	489.29	6.00	495.29
24	37.150729	-87.958390	484.35	6.00	490.35
25	37.150738	-87.957732	484.18	6.00	490.18
26	37.150680	-87.957095	486.56	6.00	492.56
27	37.149895	-87.955220	510.73	6.00	516.73
28	37.146975	-87.949045	511.64	6.00	517.64

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	37.161000	-87.981100	486.70	6.00
OP 2	2	37.160900	-87.980400	492.00	6.00
OP 3	3	37.157900	-87.974400	469.06	6.00
OP 4	4	37.157500	-87.974200	468.80	6.00
OP 5	5	37.157700	-87.973900	470.02	6.00
OP 6	6	37.157900	-87.973600	466.19	6.00
OP 7	7	37.158100	-87.973900	464.87	6.00
OP 8	8	37.156900	-87.974700	472.46	6.00
OP 9	9	37.156600	-87.975600	474.63	6.00
OP 10	10	37.156700	-87.976400	465.77	6.00
OP 11	11	37.157100	-87.974900	472.73	6.00
OP 12	12	37.165000	-88.005500	484.44	6.00
OP 13	13	37.164800	-88.003900	480.93	6.00
OP 14	14	37.164400	-88.003200	478.43	6.00
OP 15	15	37.155600	-87.971500	489.76	6.00
OP 16	16	37.156100	-87.972200	477.95	6.00
OP 17	17	37.158000	-87.973100	467.54	6.00
OP 18	18	37.158200	-87.972900	465.85	6.00
OP 19	19	37.160200	-87.972200	475.89	6.00
OP 20	20	37.162900	-87.986600	479.12	6.00
OP 21	21	37.164200	-87.992600	458.49	6.00
OP 22	22	37.164900	-87.994100	469.09	6.00
OP 23	23	37.170400	-88.003300	522.11	6.00
OP 24	24	37.149600	-87.959700	487.95	6.00
OP 25	25	37.149000	-87.960600	492.34	6.00
OP 26	26	37.149400	-87.961500	493.50	6.00
OP 27	27	37.150300	-87.961200	499.10	6.00
OP 28	28	37.150000	-87.962000	503.59	6.00
OP 29	29	37.148900	-87.962700	493.98	6.00
OP 30	30	37.163500	-87.995400	475.55	6.00
OP 31	31	37.157400	-87.975400	467.37	6.00
OP 32	32	37.155000	-87.972800	475.91	6.00
OP 33	33	37.164400	-87.960200	510.03	6.00
OP 34	34	37.172000	-87.970000	519.07	6.00
OP 35	35	37.170900	-87.982400	533.37	6.00
OP 36	36	37.177000	-87.993500	718.16	6.00
OP 37	37	37.175000	-88.009100	521.67	6.00
OP 38	38	37.178800	-88.003800	565.94	6.00
OP 39	39	37.166600	-87.961300	505.68	6.00
OP 40	40	37.165600	-87.956400	555.80	6.00

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 1 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 1 and Dalton Road

Receptor type: Route

No glare found

PV array 1 and Goodsprings Road

Receptor type: Route

No glare found

PV array 1 and Grey Road

Receptor type: Route

No glare found

PV array 1 and Marion Road

Receptor type: Route

No glare found

PV array 1 and OP 1

Receptor type: Observation Point

No glare found

PV array 1 and OP 2

Receptor type: Observation Point

No glare found

PV array 1 and OP 3

Receptor type: Observation Point

No glare found

PV array 1 and OP 4

Receptor type: Observation Point

No glare found

PV array 1 and OP 5

Receptor type: Observation Point

No glare found

PV array 1 and OP 6

Receptor type: Observation Point

No glare found

PV array 1 and OP 7

Receptor type: Observation Point
No glare found

PV array 1 and OP 8

Receptor type: Observation Point
No glare found

PV array 1 and OP 9

Receptor type: Observation Point
No glare found

PV array 1 and OP 10

Receptor type: Observation Point
No glare found

PV array 1 and OP 11

Receptor type: Observation Point
No glare found

PV array 1 and OP 12

Receptor type: Observation Point
No glare found

PV array 1 and OP 13

Receptor type: Observation Point
No glare found

PV array 1 and OP 14

Receptor type: Observation Point
No glare found

PV array 1 and OP 15

Receptor type: Observation Point
No glare found

PV array 1 and OP 16

Receptor type: Observation Point
No glare found

PV array 1 and OP 17

Receptor type: Observation Point
No glare found

PV array 1 and OP 18

Receptor type: Observation Point
No glare found

PV array 1 and OP 19

Receptor type: Observation Point
No glare found

PV array 1 and OP 20

Receptor type: Observation Point
No glare found

PV array 1 and OP 21

Receptor type: Observation Point
No glare found

PV array 1 and OP 22

Receptor type: Observation Point
No glare found

PV array 1 and OP 23

Receptor type: Observation Point
No glare found

PV array 1 and OP 24

Receptor type: Observation Point
No glare found

PV array 1 and OP 25

Receptor type: Observation Point
No glare found

PV array 1 and OP 26

Receptor type: Observation Point
No glare found

PV array 1 and OP 27

Receptor type: Observation Point
No glare found

PV array 1 and OP 28

Receptor type: Observation Point
No glare found

PV array 1 and OP 29

Receptor type: Observation Point
No glare found

PV array 1 and OP 30

Receptor type: Observation Point
No glare found

PV array 1 and OP 31

Receptor type: Observation Point
No glare found

PV array 1 and OP 32

Receptor type: Observation Point
No glare found

PV array 1 and OP 33

Receptor type: Observation Point
No glare found

PV array 1 and OP 34

Receptor type: Observation Point
No glare found

PV array 1 and OP 35

Receptor type: Observation Point
No glare found

PV array 1 and OP 36

Receptor type: Observation Point
No glare found

PV array 1 and OP 37

Receptor type: Observation Point
No glare found

PV array 1 and OP 38

Receptor type: Observation Point
No glare found

PV array 1 and OP 39

Receptor type: Observation Point
No glare found

PV array 1 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 10 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 10 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 10 and Dalton Road

Receptor type: Route

No glare found

PV array 10 and Goodsprings Road

Receptor type: Route

No glare found

PV array 10 and Grey Road

Receptor type: Route

No glare found

PV array 10 and Marion Road

Receptor type: Route

No glare found

PV array 10 and OP 1

Receptor type: Observation Point

No glare found

PV array 10 and OP 2

Receptor type: Observation Point

No glare found

PV array 10 and OP 3

Receptor type: Observation Point

No glare found

PV array 10 and OP 4

Receptor type: Observation Point

No glare found

PV array 10 and OP 5

Receptor type: Observation Point

No glare found

PV array 10 and OP 6

Receptor type: Observation Point

No glare found

PV array 10 and OP 7

Receptor type: Observation Point

No glare found

PV array 10 and OP 8

Receptor type: Observation Point

No glare found

PV array 10 and OP 9

Receptor type: Observation Point
No glare found

PV array 10 and OP 10

Receptor type: Observation Point
No glare found

PV array 10 and OP 11

Receptor type: Observation Point
No glare found

PV array 10 and OP 12

Receptor type: Observation Point
No glare found

PV array 10 and OP 13

Receptor type: Observation Point
No glare found

PV array 10 and OP 14

Receptor type: Observation Point
No glare found

PV array 10 and OP 15

Receptor type: Observation Point
No glare found

PV array 10 and OP 16

Receptor type: Observation Point
No glare found

PV array 10 and OP 17

Receptor type: Observation Point
No glare found

PV array 10 and OP 18

Receptor type: Observation Point
No glare found

PV array 10 and OP 19

Receptor type: Observation Point
No glare found

PV array 10 and OP 20

Receptor type: Observation Point
No glare found

PV array 10 and OP 21

Receptor type: Observation Point
No glare found

PV array 10 and OP 22

Receptor type: Observation Point
No glare found

PV array 10 and OP 23

Receptor type: Observation Point
No glare found

PV array 10 and OP 24

Receptor type: Observation Point
No glare found

PV array 10 and OP 25

Receptor type: Observation Point
No glare found

PV array 10 and OP 26

Receptor type: Observation Point
No glare found

PV array 10 and OP 27

Receptor type: Observation Point
No glare found

PV array 10 and OP 28

Receptor type: Observation Point
No glare found

PV array 10 and OP 29

Receptor type: Observation Point
No glare found

PV array 10 and OP 30

Receptor type: Observation Point
No glare found

PV array 10 and OP 31

Receptor type: Observation Point
No glare found

PV array 10 and OP 32

Receptor type: Observation Point
No glare found

PV array 10 and OP 33

Receptor type: Observation Point
No glare found

PV array 10 and OP 34

Receptor type: Observation Point
No glare found

PV array 10 and OP 35

Receptor type: Observation Point
No glare found

PV array 10 and OP 36

Receptor type: Observation Point
No glare found

PV array 10 and OP 37

Receptor type: Observation Point
No glare found

PV array 10 and OP 38

Receptor type: Observation Point
No glare found

PV array 10 and OP 39

Receptor type: Observation Point
No glare found

PV array 10 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 11 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 11 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 11 and Dalton Road

Receptor type: Route

No glare found

PV array 11 and Goodsprings Road

Receptor type: Route

No glare found

PV array 11 and Grey Road

Receptor type: Route

No glare found

PV array 11 and Marion Road

Receptor type: Route

No glare found

PV array 11 and OP 1

Receptor type: Observation Point

No glare found

PV array 11 and OP 2

Receptor type: Observation Point

No glare found

PV array 11 and OP 3

Receptor type: Observation Point

No glare found

PV array 11 and OP 4

Receptor type: Observation Point

No glare found

PV array 11 and OP 5

Receptor type: Observation Point

No glare found

PV array 11 and OP 6

Receptor type: Observation Point

No glare found

PV array 11 and OP 7

Receptor type: Observation Point

No glare found

PV array 11 and OP 8

Receptor type: Observation Point

No glare found

PV array 11 and OP 9

Receptor type: Observation Point
No glare found

PV array 11 and OP 10

Receptor type: Observation Point
No glare found

PV array 11 and OP 11

Receptor type: Observation Point
No glare found

PV array 11 and OP 12

Receptor type: Observation Point
No glare found

PV array 11 and OP 13

Receptor type: Observation Point
No glare found

PV array 11 and OP 14

Receptor type: Observation Point
No glare found

PV array 11 and OP 15

Receptor type: Observation Point
No glare found

PV array 11 and OP 16

Receptor type: Observation Point
No glare found

PV array 11 and OP 17

Receptor type: Observation Point
No glare found

PV array 11 and OP 18

Receptor type: Observation Point
No glare found

PV array 11 and OP 19

Receptor type: Observation Point
No glare found

PV array 11 and OP 20

Receptor type: Observation Point
No glare found

PV array 11 and OP 21

Receptor type: Observation Point
No glare found

PV array 11 and OP 22

Receptor type: Observation Point
No glare found

PV array 11 and OP 23

Receptor type: Observation Point
No glare found

PV array 11 and OP 24

Receptor type: Observation Point
No glare found

PV array 11 and OP 25

Receptor type: Observation Point
No glare found

PV array 11 and OP 26

Receptor type: Observation Point
No glare found

PV array 11 and OP 27

Receptor type: Observation Point
No glare found

PV array 11 and OP 28

Receptor type: Observation Point
No glare found

PV array 11 and OP 29

Receptor type: Observation Point

No glare found

PV array 11 and OP 30

Receptor type: Observation Point

No glare found

PV array 11 and OP 31

Receptor type: Observation Point

No glare found

PV array 11 and OP 32

Receptor type: Observation Point

No glare found

PV array 11 and OP 33

Receptor type: Observation Point

No glare found

PV array 11 and OP 34

Receptor type: Observation Point

No glare found

PV array 11 and OP 35

Receptor type: Observation Point

No glare found

PV array 11 and OP 36

Receptor type: Observation Point

No glare found

PV array 11 and OP 37

Receptor type: Observation Point

No glare found

PV array 11 and OP 38

Receptor type: Observation Point

No glare found

PV array 11 and OP 39

Receptor type: Observation Point

No glare found

PV array 11 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 12 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 12 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 12 and Dalton Road

Receptor type: Route

No glare found

PV array 12 and Goodsprings Road

Receptor type: Route

No glare found

PV array 12 and Grey Road

Receptor type: Route

No glare found

PV array 12 and Marion Road

Receptor type: Route

No glare found

PV array 12 and OP 1

Receptor type: Observation Point

No glare found

PV array 12 and OP 2

Receptor type: Observation Point

No glare found

PV array 12 and OP 3

Receptor type: Observation Point

No glare found

PV array 12 and OP 4

Receptor type: Observation Point

No glare found

PV array 12 and OP 5

Receptor type: Observation Point

No glare found

PV array 12 and OP 6

Receptor type: Observation Point

No glare found

PV array 12 and OP 7

Receptor type: Observation Point

No glare found

PV array 12 and OP 8

Receptor type: Observation Point

No glare found

PV array 12 and OP 9

Receptor type: Observation Point
No glare found

PV array 12 and OP 10

Receptor type: Observation Point
No glare found

PV array 12 and OP 11

Receptor type: Observation Point
No glare found

PV array 12 and OP 12

Receptor type: Observation Point
No glare found

PV array 12 and OP 13

Receptor type: Observation Point
No glare found

PV array 12 and OP 14

Receptor type: Observation Point
No glare found

PV array 12 and OP 15

Receptor type: Observation Point
No glare found

PV array 12 and OP 16

Receptor type: Observation Point
No glare found

PV array 12 and OP 17

Receptor type: Observation Point
No glare found

PV array 12 and OP 18

Receptor type: Observation Point
No glare found

PV array 12 and OP 19

Receptor type: Observation Point
No glare found

PV array 12 and OP 20

Receptor type: Observation Point
No glare found

PV array 12 and OP 21

Receptor type: Observation Point
No glare found

PV array 12 and OP 22

Receptor type: Observation Point
No glare found

PV array 12 and OP 23

Receptor type: Observation Point
No glare found

PV array 12 and OP 24

Receptor type: Observation Point
No glare found

PV array 12 and OP 25

Receptor type: Observation Point
No glare found

PV array 12 and OP 26

Receptor type: Observation Point
No glare found

PV array 12 and OP 27

Receptor type: Observation Point
No glare found

PV array 12 and OP 28

Receptor type: Observation Point
No glare found

PV array 12 and OP 29

Receptor type: Observation Point
No glare found

PV array 12 and OP 30

Receptor type: Observation Point
No glare found

PV array 12 and OP 31

Receptor type: Observation Point
No glare found

PV array 12 and OP 32

Receptor type: Observation Point
No glare found

PV array 12 and OP 33

Receptor type: Observation Point
No glare found

PV array 12 and OP 34

Receptor type: Observation Point
No glare found

PV array 12 and OP 35

Receptor type: Observation Point
No glare found

PV array 12 and OP 36

Receptor type: Observation Point
No glare found

PV array 12 and OP 37

Receptor type: Observation Point
No glare found

PV array 12 and OP 38

Receptor type: Observation Point
No glare found

PV array 12 and OP 39

Receptor type: Observation Point
No glare found

PV array 12 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 13 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 13 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 13 and Dalton Road

Receptor type: Route

No glare found

PV array 13 and Goodsprings Road

Receptor type: Route

No glare found

PV array 13 and Grey Road

Receptor type: Route

No glare found

PV array 13 and Marion Road

Receptor type: Route

No glare found

PV array 13 and OP 1

Receptor type: Observation Point

No glare found

PV array 13 and OP 2

Receptor type: Observation Point

No glare found

PV array 13 and OP 3

Receptor type: Observation Point

No glare found

PV array 13 and OP 4

Receptor type: Observation Point

No glare found

PV array 13 and OP 5

Receptor type: Observation Point

No glare found

PV array 13 and OP 6

Receptor type: Observation Point

No glare found

PV array 13 and OP 7

Receptor type: Observation Point

No glare found

PV array 13 and OP 8

Receptor type: Observation Point

No glare found

PV array 13 and OP 9

Receptor type: Observation Point
No glare found

PV array 13 and OP 10

Receptor type: Observation Point
No glare found

PV array 13 and OP 11

Receptor type: Observation Point
No glare found

PV array 13 and OP 12

Receptor type: Observation Point
No glare found

PV array 13 and OP 13

Receptor type: Observation Point
No glare found

PV array 13 and OP 14

Receptor type: Observation Point
No glare found

PV array 13 and OP 15

Receptor type: Observation Point
No glare found

PV array 13 and OP 16

Receptor type: Observation Point
No glare found

PV array 13 and OP 17

Receptor type: Observation Point
No glare found

PV array 13 and OP 18

Receptor type: Observation Point
No glare found

PV array 13 and OP 19

Receptor type: Observation Point
No glare found

PV array 13 and OP 20

Receptor type: Observation Point
No glare found

PV array 13 and OP 21

Receptor type: Observation Point
No glare found

PV array 13 and OP 22

Receptor type: Observation Point
No glare found

PV array 13 and OP 23

Receptor type: Observation Point
No glare found

PV array 13 and OP 24

Receptor type: Observation Point
No glare found

PV array 13 and OP 25

Receptor type: Observation Point
No glare found

PV array 13 and OP 26

Receptor type: Observation Point
No glare found

PV array 13 and OP 27

Receptor type: Observation Point
No glare found

PV array 13 and OP 28

Receptor type: Observation Point
No glare found

PV array 13 and OP 29

Receptor type: Observation Point
No glare found

PV array 13 and OP 30

Receptor type: Observation Point
No glare found

PV array 13 and OP 31

Receptor type: Observation Point
No glare found

PV array 13 and OP 32

Receptor type: Observation Point
No glare found

PV array 13 and OP 33

Receptor type: Observation Point
No glare found

PV array 13 and OP 34

Receptor type: Observation Point
No glare found

PV array 13 and OP 35

Receptor type: Observation Point
No glare found

PV array 13 and OP 36

Receptor type: Observation Point
No glare found

PV array 13 and OP 37

Receptor type: Observation Point
No glare found

PV array 13 and OP 38

Receptor type: Observation Point
No glare found

PV array 13 and OP 39

Receptor type: Observation Point
No glare found

PV array 13 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 14 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 14 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 14 and Dalton Road

Receptor type: Route

No glare found

PV array 14 and Goodsprings Road

Receptor type: Route

No glare found

PV array 14 and Grey Road

Receptor type: Route

No glare found

PV array 14 and Marion Road

Receptor type: Route

No glare found

PV array 14 and OP 1

Receptor type: Observation Point

No glare found

PV array 14 and OP 2

Receptor type: Observation Point

No glare found

PV array 14 and OP 3

Receptor type: Observation Point

No glare found

PV array 14 and OP 4

Receptor type: Observation Point

No glare found

PV array 14 and OP 5

Receptor type: Observation Point

No glare found

PV array 14 and OP 6

Receptor type: Observation Point

No glare found

PV array 14 and OP 7

Receptor type: Observation Point

No glare found

PV array 14 and OP 8

Receptor type: Observation Point

No glare found

PV array 14 and OP 9

Receptor type: Observation Point
No glare found

PV array 14 and OP 10

Receptor type: Observation Point
No glare found

PV array 14 and OP 11

Receptor type: Observation Point
No glare found

PV array 14 and OP 12

Receptor type: Observation Point
No glare found

PV array 14 and OP 13

Receptor type: Observation Point
No glare found

PV array 14 and OP 14

Receptor type: Observation Point
No glare found

PV array 14 and OP 15

Receptor type: Observation Point
No glare found

PV array 14 and OP 16

Receptor type: Observation Point
No glare found

PV array 14 and OP 17

Receptor type: Observation Point
No glare found

PV array 14 and OP 18

Receptor type: Observation Point
No glare found

PV array 14 and OP 19

Receptor type: Observation Point
No glare found

PV array 14 and OP 20

Receptor type: Observation Point
No glare found

PV array 14 and OP 21

Receptor type: Observation Point
No glare found

PV array 14 and OP 22

Receptor type: Observation Point
No glare found

PV array 14 and OP 23

Receptor type: Observation Point
No glare found

PV array 14 and OP 24

Receptor type: Observation Point
No glare found

PV array 14 and OP 25

Receptor type: Observation Point
No glare found

PV array 14 and OP 26

Receptor type: Observation Point
No glare found

PV array 14 and OP 27

Receptor type: Observation Point
No glare found

PV array 14 and OP 28

Receptor type: Observation Point
No glare found

PV array 14 and OP 29

Receptor type: Observation Point

No glare found

PV array 14 and OP 30

Receptor type: Observation Point

No glare found

PV array 14 and OP 31

Receptor type: Observation Point

No glare found

PV array 14 and OP 32

Receptor type: Observation Point

No glare found

PV array 14 and OP 33

Receptor type: Observation Point

No glare found

PV array 14 and OP 34

Receptor type: Observation Point

No glare found

PV array 14 and OP 35

Receptor type: Observation Point

No glare found

PV array 14 and OP 36

Receptor type: Observation Point

No glare found

PV array 14 and OP 37

Receptor type: Observation Point

No glare found

PV array 14 and OP 38

Receptor type: Observation Point

No glare found

PV array 14 and OP 39

Receptor type: Observation Point

No glare found

PV array 14 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 15 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 15 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 15 and Dalton Road

Receptor type: Route

No glare found

PV array 15 and Goodsprings Road

Receptor type: Route

No glare found

PV array 15 and Grey Road

Receptor type: Route

No glare found

PV array 15 and Marion Road

Receptor type: Route

No glare found

PV array 15 and OP 1

Receptor type: Observation Point

No glare found

PV array 15 and OP 2

Receptor type: Observation Point

No glare found

PV array 15 and OP 3

Receptor type: Observation Point

No glare found

PV array 15 and OP 4

Receptor type: Observation Point

No glare found

PV array 15 and OP 5

Receptor type: Observation Point

No glare found

PV array 15 and OP 6

Receptor type: Observation Point

No glare found

PV array 15 and OP 7

Receptor type: Observation Point

No glare found

PV array 15 and OP 8

Receptor type: Observation Point

No glare found

PV array 15 and OP 9

Receptor type: Observation Point
No glare found

PV array 15 and OP 10

Receptor type: Observation Point
No glare found

PV array 15 and OP 11

Receptor type: Observation Point
No glare found

PV array 15 and OP 12

Receptor type: Observation Point
No glare found

PV array 15 and OP 13

Receptor type: Observation Point
No glare found

PV array 15 and OP 14

Receptor type: Observation Point
No glare found

PV array 15 and OP 15

Receptor type: Observation Point
No glare found

PV array 15 and OP 16

Receptor type: Observation Point
No glare found

PV array 15 and OP 17

Receptor type: Observation Point
No glare found

PV array 15 and OP 18

Receptor type: Observation Point
No glare found

PV array 15 and OP 19

Receptor type: Observation Point
No glare found

PV array 15 and OP 20

Receptor type: Observation Point
No glare found

PV array 15 and OP 21

Receptor type: Observation Point
No glare found

PV array 15 and OP 22

Receptor type: Observation Point
No glare found

PV array 15 and OP 23

Receptor type: Observation Point
No glare found

PV array 15 and OP 24

Receptor type: Observation Point
No glare found

PV array 15 and OP 25

Receptor type: Observation Point
No glare found

PV array 15 and OP 26

Receptor type: Observation Point
No glare found

PV array 15 and OP 27

Receptor type: Observation Point
No glare found

PV array 15 and OP 28

Receptor type: Observation Point
No glare found

PV array 15 and OP 29

Receptor type: Observation Point
No glare found

PV array 15 and OP 30

Receptor type: Observation Point
No glare found

PV array 15 and OP 31

Receptor type: Observation Point
No glare found

PV array 15 and OP 32

Receptor type: Observation Point
No glare found

PV array 15 and OP 33

Receptor type: Observation Point
No glare found

PV array 15 and OP 34

Receptor type: Observation Point
No glare found

PV array 15 and OP 35

Receptor type: Observation Point
No glare found

PV array 15 and OP 36

Receptor type: Observation Point
No glare found

PV array 15 and OP 37

Receptor type: Observation Point
No glare found

PV array 15 and OP 38

Receptor type: Observation Point
No glare found

PV array 15 and OP 39

Receptor type: Observation Point
No glare found

PV array 15 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 16 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 16 and Dalton Road

Receptor type: Route

No glare found

PV array 16 and Goodsprings Road

Receptor type: Route

No glare found

PV array 16 and Grey Road

Receptor type: Route

No glare found

PV array 16 and Marion Road

Receptor type: Route

No glare found

PV array 16 and OP 1

Receptor type: Observation Point

No glare found

PV array 16 and OP 2

Receptor type: Observation Point

No glare found

PV array 16 and OP 3

Receptor type: Observation Point

No glare found

PV array 16 and OP 4

Receptor type: Observation Point

No glare found

PV array 16 and OP 5

Receptor type: Observation Point

No glare found

PV array 16 and OP 6

Receptor type: Observation Point

No glare found

PV array 16 and OP 7

Receptor type: Observation Point

No glare found

PV array 16 and OP 8

Receptor type: Observation Point

No glare found

PV array 16 and OP 9

Receptor type: Observation Point
No glare found

PV array 16 and OP 10

Receptor type: Observation Point
No glare found

PV array 16 and OP 11

Receptor type: Observation Point
No glare found

PV array 16 and OP 12

Receptor type: Observation Point
No glare found

PV array 16 and OP 13

Receptor type: Observation Point
No glare found

PV array 16 and OP 14

Receptor type: Observation Point
No glare found

PV array 16 and OP 15

Receptor type: Observation Point
No glare found

PV array 16 and OP 16

Receptor type: Observation Point
No glare found

PV array 16 and OP 17

Receptor type: Observation Point
No glare found

PV array 16 and OP 18

Receptor type: Observation Point
No glare found

PV array 16 and OP 19

Receptor type: Observation Point
No glare found

PV array 16 and OP 20

Receptor type: Observation Point
No glare found

PV array 16 and OP 21

Receptor type: Observation Point
No glare found

PV array 16 and OP 22

Receptor type: Observation Point
No glare found

PV array 16 and OP 23

Receptor type: Observation Point
No glare found

PV array 16 and OP 24

Receptor type: Observation Point
No glare found

PV array 16 and OP 25

Receptor type: Observation Point
No glare found

PV array 16 and OP 26

Receptor type: Observation Point
No glare found

PV array 16 and OP 27

Receptor type: Observation Point
No glare found

PV array 16 and OP 28

Receptor type: Observation Point
No glare found

PV array 16 and OP 29

Receptor type: Observation Point
No glare found

PV array 16 and OP 30

Receptor type: Observation Point
No glare found

PV array 16 and OP 31

Receptor type: Observation Point
No glare found

PV array 16 and OP 32

Receptor type: Observation Point
No glare found

PV array 16 and OP 33

Receptor type: Observation Point
No glare found

PV array 16 and OP 34

Receptor type: Observation Point
No glare found

PV array 16 and OP 35

Receptor type: Observation Point
No glare found

PV array 16 and OP 36

Receptor type: Observation Point
No glare found

PV array 16 and OP 37

Receptor type: Observation Point
No glare found

PV array 16 and OP 38

Receptor type: Observation Point
No glare found

PV array 16 and OP 39

Receptor type: Observation Point
No glare found

PV array 16 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 17 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 17 and Dalton Road

Receptor type: Route

No glare found

PV array 17 and Goodsprings Road

Receptor type: Route

No glare found

PV array 17 and Grey Road

Receptor type: Route

No glare found

PV array 17 and Marion Road

Receptor type: Route

No glare found

PV array 17 and OP 1

Receptor type: Observation Point

No glare found

PV array 17 and OP 2

Receptor type: Observation Point

No glare found

PV array 17 and OP 3

Receptor type: Observation Point

No glare found

PV array 17 and OP 4

Receptor type: Observation Point

No glare found

PV array 17 and OP 5

Receptor type: Observation Point

No glare found

PV array 17 and OP 6

Receptor type: Observation Point

No glare found

PV array 17 and OP 7

Receptor type: Observation Point

No glare found

PV array 17 and OP 8

Receptor type: Observation Point

No glare found

PV array 17 and OP 9

Receptor type: Observation Point
No glare found

PV array 17 and OP 10

Receptor type: Observation Point
No glare found

PV array 17 and OP 11

Receptor type: Observation Point
No glare found

PV array 17 and OP 12

Receptor type: Observation Point
No glare found

PV array 17 and OP 13

Receptor type: Observation Point
No glare found

PV array 17 and OP 14

Receptor type: Observation Point
No glare found

PV array 17 and OP 15

Receptor type: Observation Point
No glare found

PV array 17 and OP 16

Receptor type: Observation Point
No glare found

PV array 17 and OP 17

Receptor type: Observation Point
No glare found

PV array 17 and OP 18

Receptor type: Observation Point
No glare found

PV array 17 and OP 19

Receptor type: Observation Point
No glare found

PV array 17 and OP 20

Receptor type: Observation Point
No glare found

PV array 17 and OP 21

Receptor type: Observation Point
No glare found

PV array 17 and OP 22

Receptor type: Observation Point
No glare found

PV array 17 and OP 23

Receptor type: Observation Point
No glare found

PV array 17 and OP 24

Receptor type: Observation Point
No glare found

PV array 17 and OP 25

Receptor type: Observation Point
No glare found

PV array 17 and OP 26

Receptor type: Observation Point
No glare found

PV array 17 and OP 27

Receptor type: Observation Point
No glare found

PV array 17 and OP 28

Receptor type: Observation Point
No glare found

PV array 17 and OP 29

Receptor type: Observation Point
No glare found

PV array 17 and OP 30

Receptor type: Observation Point
No glare found

PV array 17 and OP 31

Receptor type: Observation Point
No glare found

PV array 17 and OP 32

Receptor type: Observation Point
No glare found

PV array 17 and OP 33

Receptor type: Observation Point
No glare found

PV array 17 and OP 34

Receptor type: Observation Point
No glare found

PV array 17 and OP 35

Receptor type: Observation Point
No glare found

PV array 17 and OP 36

Receptor type: Observation Point
No glare found

PV array 17 and OP 37

Receptor type: Observation Point
No glare found

PV array 17 and OP 38

Receptor type: Observation Point
No glare found

PV array 17 and OP 39

Receptor type: Observation Point
No glare found

PV array 17 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 18 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 18 and Dalton Road

Receptor type: Route

No glare found

PV array 18 and Goodsprings Road

Receptor type: Route

No glare found

PV array 18 and Grey Road

Receptor type: Route

No glare found

PV array 18 and Marion Road

Receptor type: Route

No glare found

PV array 18 and OP 1

Receptor type: Observation Point

No glare found

PV array 18 and OP 2

Receptor type: Observation Point

No glare found

PV array 18 and OP 3

Receptor type: Observation Point

No glare found

PV array 18 and OP 4

Receptor type: Observation Point

No glare found

PV array 18 and OP 5

Receptor type: Observation Point

No glare found

PV array 18 and OP 6

Receptor type: Observation Point

No glare found

PV array 18 and OP 7

Receptor type: Observation Point

No glare found

PV array 18 and OP 8

Receptor type: Observation Point

No glare found

PV array 18 and OP 9

Receptor type: Observation Point
No glare found

PV array 18 and OP 10

Receptor type: Observation Point
No glare found

PV array 18 and OP 11

Receptor type: Observation Point
No glare found

PV array 18 and OP 12

Receptor type: Observation Point
No glare found

PV array 18 and OP 13

Receptor type: Observation Point
No glare found

PV array 18 and OP 14

Receptor type: Observation Point
No glare found

PV array 18 and OP 15

Receptor type: Observation Point
No glare found

PV array 18 and OP 16

Receptor type: Observation Point
No glare found

PV array 18 and OP 17

Receptor type: Observation Point
No glare found

PV array 18 and OP 18

Receptor type: Observation Point
No glare found

PV array 18 and OP 19

Receptor type: Observation Point
No glare found

PV array 18 and OP 20

Receptor type: Observation Point
No glare found

PV array 18 and OP 21

Receptor type: Observation Point
No glare found

PV array 18 and OP 22

Receptor type: Observation Point
No glare found

PV array 18 and OP 23

Receptor type: Observation Point
No glare found

PV array 18 and OP 24

Receptor type: Observation Point
No glare found

PV array 18 and OP 25

Receptor type: Observation Point
No glare found

PV array 18 and OP 26

Receptor type: Observation Point
No glare found

PV array 18 and OP 27

Receptor type: Observation Point
No glare found

PV array 18 and OP 28

Receptor type: Observation Point
No glare found

PV array 18 and OP 29

Receptor type: Observation Point

No glare found

PV array 18 and OP 30

Receptor type: Observation Point

No glare found

PV array 18 and OP 31

Receptor type: Observation Point

No glare found

PV array 18 and OP 32

Receptor type: Observation Point

No glare found

PV array 18 and OP 33

Receptor type: Observation Point

No glare found

PV array 18 and OP 34

Receptor type: Observation Point

No glare found

PV array 18 and OP 35

Receptor type: Observation Point

No glare found

PV array 18 and OP 36

Receptor type: Observation Point

No glare found

PV array 18 and OP 37

Receptor type: Observation Point

No glare found

PV array 18 and OP 38

Receptor type: Observation Point

No glare found

PV array 18 and OP 39

Receptor type: Observation Point

No glare found

PV array 18 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 2 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 2 and Dalton Road

Receptor type: Route

No glare found

PV array 2 and Goodsprings Road

Receptor type: Route

No glare found

PV array 2 and Grey Road

Receptor type: Route

No glare found

PV array 2 and Marion Road

Receptor type: Route

No glare found

PV array 2 and OP 1

Receptor type: Observation Point

No glare found

PV array 2 and OP 2

Receptor type: Observation Point

No glare found

PV array 2 and OP 3

Receptor type: Observation Point

No glare found

PV array 2 and OP 4

Receptor type: Observation Point

No glare found

PV array 2 and OP 5

Receptor type: Observation Point

No glare found

PV array 2 and OP 6

Receptor type: Observation Point

No glare found

PV array 2 and OP 7

Receptor type: Observation Point

No glare found

PV array 2 and OP 8

Receptor type: Observation Point

No glare found

PV array 2 and OP 9

Receptor type: Observation Point
No glare found

PV array 2 and OP 10

Receptor type: Observation Point
No glare found

PV array 2 and OP 11

Receptor type: Observation Point
No glare found

PV array 2 and OP 12

Receptor type: Observation Point
No glare found

PV array 2 and OP 13

Receptor type: Observation Point
No glare found

PV array 2 and OP 14

Receptor type: Observation Point
No glare found

PV array 2 and OP 15

Receptor type: Observation Point
No glare found

PV array 2 and OP 16

Receptor type: Observation Point
No glare found

PV array 2 and OP 17

Receptor type: Observation Point
No glare found

PV array 2 and OP 18

Receptor type: Observation Point
No glare found

PV array 2 and OP 19

Receptor type: Observation Point
No glare found

PV array 2 and OP 20

Receptor type: Observation Point
No glare found

PV array 2 and OP 21

Receptor type: Observation Point
No glare found

PV array 2 and OP 22

Receptor type: Observation Point
No glare found

PV array 2 and OP 23

Receptor type: Observation Point
No glare found

PV array 2 and OP 24

Receptor type: Observation Point
No glare found

PV array 2 and OP 25

Receptor type: Observation Point
No glare found

PV array 2 and OP 26

Receptor type: Observation Point
No glare found

PV array 2 and OP 27

Receptor type: Observation Point
No glare found

PV array 2 and OP 28

Receptor type: Observation Point
No glare found

PV array 2 and OP 29

Receptor type: Observation Point

No glare found

PV array 2 and OP 30

Receptor type: Observation Point

No glare found

PV array 2 and OP 31

Receptor type: Observation Point

No glare found

PV array 2 and OP 32

Receptor type: Observation Point

No glare found

PV array 2 and OP 33

Receptor type: Observation Point

No glare found

PV array 2 and OP 34

Receptor type: Observation Point

No glare found

PV array 2 and OP 35

Receptor type: Observation Point

No glare found

PV array 2 and OP 36

Receptor type: Observation Point

No glare found

PV array 2 and OP 37

Receptor type: Observation Point

No glare found

PV array 2 and OP 38

Receptor type: Observation Point

No glare found

PV array 2 and OP 39

Receptor type: Observation Point

No glare found

PV array 2 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 3 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 3 and Dalton Road

Receptor type: Route

No glare found

PV array 3 and Goodsprings Road

Receptor type: Route

No glare found

PV array 3 and Grey Road

Receptor type: Route

No glare found

PV array 3 and Marion Road

Receptor type: Route

No glare found

PV array 3 and OP 1

Receptor type: Observation Point

No glare found

PV array 3 and OP 2

Receptor type: Observation Point

No glare found

PV array 3 and OP 3

Receptor type: Observation Point

No glare found

PV array 3 and OP 4

Receptor type: Observation Point

No glare found

PV array 3 and OP 5

Receptor type: Observation Point

No glare found

PV array 3 and OP 6

Receptor type: Observation Point

No glare found

PV array 3 and OP 7

Receptor type: Observation Point

No glare found

PV array 3 and OP 8

Receptor type: Observation Point

No glare found

PV array 3 and OP 9

Receptor type: Observation Point
No glare found

PV array 3 and OP 10

Receptor type: Observation Point
No glare found

PV array 3 and OP 11

Receptor type: Observation Point
No glare found

PV array 3 and OP 12

Receptor type: Observation Point
No glare found

PV array 3 and OP 13

Receptor type: Observation Point
No glare found

PV array 3 and OP 14

Receptor type: Observation Point
No glare found

PV array 3 and OP 15

Receptor type: Observation Point
No glare found

PV array 3 and OP 16

Receptor type: Observation Point
No glare found

PV array 3 and OP 17

Receptor type: Observation Point
No glare found

PV array 3 and OP 18

Receptor type: Observation Point
No glare found

PV array 3 and OP 19

Receptor type: Observation Point
No glare found

PV array 3 and OP 20

Receptor type: Observation Point
No glare found

PV array 3 and OP 21

Receptor type: Observation Point
No glare found

PV array 3 and OP 22

Receptor type: Observation Point
No glare found

PV array 3 and OP 23

Receptor type: Observation Point
No glare found

PV array 3 and OP 24

Receptor type: Observation Point
No glare found

PV array 3 and OP 25

Receptor type: Observation Point
No glare found

PV array 3 and OP 26

Receptor type: Observation Point
No glare found

PV array 3 and OP 27

Receptor type: Observation Point
No glare found

PV array 3 and OP 28

Receptor type: Observation Point
No glare found

PV array 3 and OP 29

Receptor type: Observation Point

No glare found

PV array 3 and OP 30

Receptor type: Observation Point

No glare found

PV array 3 and OP 31

Receptor type: Observation Point

No glare found

PV array 3 and OP 32

Receptor type: Observation Point

No glare found

PV array 3 and OP 33

Receptor type: Observation Point

No glare found

PV array 3 and OP 34

Receptor type: Observation Point

No glare found

PV array 3 and OP 35

Receptor type: Observation Point

No glare found

PV array 3 and OP 36

Receptor type: Observation Point

No glare found

PV array 3 and OP 37

Receptor type: Observation Point

No glare found

PV array 3 and OP 38

Receptor type: Observation Point

No glare found

PV array 3 and OP 39

Receptor type: Observation Point

No glare found

PV array 3 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 4 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 4 and Dalton Road

Receptor type: Route

No glare found

PV array 4 and Goodsprings Road

Receptor type: Route

No glare found

PV array 4 and Grey Road

Receptor type: Route

No glare found

PV array 4 and Marion Road

Receptor type: Route

No glare found

PV array 4 and OP 1

Receptor type: Observation Point

No glare found

PV array 4 and OP 2

Receptor type: Observation Point

No glare found

PV array 4 and OP 3

Receptor type: Observation Point

No glare found

PV array 4 and OP 4

Receptor type: Observation Point

No glare found

PV array 4 and OP 5

Receptor type: Observation Point

No glare found

PV array 4 and OP 6

Receptor type: Observation Point

No glare found

PV array 4 and OP 7

Receptor type: Observation Point

No glare found

PV array 4 and OP 8

Receptor type: Observation Point

No glare found

PV array 4 and OP 9

Receptor type: Observation Point
No glare found

PV array 4 and OP 10

Receptor type: Observation Point
No glare found

PV array 4 and OP 11

Receptor type: Observation Point
No glare found

PV array 4 and OP 12

Receptor type: Observation Point
No glare found

PV array 4 and OP 13

Receptor type: Observation Point
No glare found

PV array 4 and OP 14

Receptor type: Observation Point
No glare found

PV array 4 and OP 15

Receptor type: Observation Point
No glare found

PV array 4 and OP 16

Receptor type: Observation Point
No glare found

PV array 4 and OP 17

Receptor type: Observation Point
No glare found

PV array 4 and OP 18

Receptor type: Observation Point
No glare found

PV array 4 and OP 19

Receptor type: Observation Point
No glare found

PV array 4 and OP 20

Receptor type: Observation Point
No glare found

PV array 4 and OP 21

Receptor type: Observation Point
No glare found

PV array 4 and OP 22

Receptor type: Observation Point
No glare found

PV array 4 and OP 23

Receptor type: Observation Point
No glare found

PV array 4 and OP 24

Receptor type: Observation Point
No glare found

PV array 4 and OP 25

Receptor type: Observation Point
No glare found

PV array 4 and OP 26

Receptor type: Observation Point
No glare found

PV array 4 and OP 27

Receptor type: Observation Point
No glare found

PV array 4 and OP 28

Receptor type: Observation Point
No glare found

PV array 4 and OP 29

Receptor type: Observation Point
No glare found

PV array 4 and OP 30

Receptor type: Observation Point
No glare found

PV array 4 and OP 31

Receptor type: Observation Point
No glare found

PV array 4 and OP 32

Receptor type: Observation Point
No glare found

PV array 4 and OP 33

Receptor type: Observation Point
No glare found

PV array 4 and OP 34

Receptor type: Observation Point
No glare found

PV array 4 and OP 35

Receptor type: Observation Point
No glare found

PV array 4 and OP 36

Receptor type: Observation Point
No glare found

PV array 4 and OP 37

Receptor type: Observation Point
No glare found

PV array 4 and OP 38

Receptor type: Observation Point
No glare found

PV array 4 and OP 39

Receptor type: Observation Point
No glare found

PV array 4 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 5 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 5 and Dalton Road

Receptor type: Route

No glare found

PV array 5 and Goodsprings Road

Receptor type: Route

No glare found

PV array 5 and Grey Road

Receptor type: Route

No glare found

PV array 5 and Marion Road

Receptor type: Route

No glare found

PV array 5 and OP 1

Receptor type: Observation Point

No glare found

PV array 5 and OP 2

Receptor type: Observation Point

No glare found

PV array 5 and OP 3

Receptor type: Observation Point

No glare found

PV array 5 and OP 4

Receptor type: Observation Point

No glare found

PV array 5 and OP 5

Receptor type: Observation Point

No glare found

PV array 5 and OP 6

Receptor type: Observation Point

No glare found

PV array 5 and OP 7

Receptor type: Observation Point

No glare found

PV array 5 and OP 8

Receptor type: Observation Point

No glare found

PV array 5 and OP 9

Receptor type: Observation Point

No glare found

PV array 5 and OP 10

Receptor type: Observation Point

No glare found

PV array 5 and OP 11

Receptor type: Observation Point

No glare found

PV array 5 and OP 12

Receptor type: Observation Point

No glare found

PV array 5 and OP 13

Receptor type: Observation Point

No glare found

PV array 5 and OP 14

Receptor type: Observation Point

No glare found

PV array 5 and OP 15

Receptor type: Observation Point

No glare found

PV array 5 and OP 16

Receptor type: Observation Point

No glare found

PV array 5 and OP 17

Receptor type: Observation Point

No glare found

PV array 5 and OP 18

Receptor type: Observation Point

No glare found

PV array 5 and OP 19

Receptor type: Observation Point

No glare found

PV array 5 and OP 20

Receptor type: Observation Point

No glare found

PV array 5 and OP 21

Receptor type: Observation Point

No glare found

PV array 5 and OP 22

Receptor type: Observation Point

No glare found

PV array 5 and OP 23

Receptor type: Observation Point

No glare found

PV array 5 and OP 24

Receptor type: Observation Point

No glare found

PV array 5 and OP 25

Receptor type: Observation Point

No glare found

PV array 5 and OP 26

Receptor type: Observation Point

No glare found

PV array 5 and OP 27

Receptor type: Observation Point

No glare found

PV array 5 and OP 28

Receptor type: Observation Point

No glare found

PV array 5 and OP 29

Receptor type: Observation Point

No glare found

PV array 5 and OP 30

Receptor type: Observation Point

No glare found

PV array 5 and OP 31

Receptor type: Observation Point

No glare found

PV array 5 and OP 32

Receptor type: Observation Point

No glare found

PV array 5 and OP 33

Receptor type: Observation Point

No glare found

PV array 5 and OP 34

Receptor type: Observation Point

No glare found

PV array 5 and OP 35

Receptor type: Observation Point

No glare found

PV array 5 and OP 36

Receptor type: Observation Point

No glare found

PV array 5 and OP 37

Receptor type: Observation Point

No glare found

PV array 5 and OP 38

Receptor type: Observation Point

No glare found

PV array 5 and OP 39

Receptor type: Observation Point

No glare found

PV array 5 and OP 40

Receptor type: Observation Point

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 6 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 6 and Dalton Road

Receptor type: Route

No glare found

PV array 6 and Goodsprings Road

Receptor type: Route

No glare found

PV array 6 and Grey Road

Receptor type: Route

No glare found

PV array 6 and Marion Road

Receptor type: Route

No glare found

PV array 6 and OP 1

Receptor type: Observation Point

No glare found

PV array 6 and OP 2

Receptor type: Observation Point

No glare found

PV array 6 and OP 3

Receptor type: Observation Point

No glare found

PV array 6 and OP 4

Receptor type: Observation Point

No glare found

PV array 6 and OP 5

Receptor type: Observation Point

No glare found

PV array 6 and OP 6

Receptor type: Observation Point

No glare found

PV array 6 and OP 7

Receptor type: Observation Point

No glare found

PV array 6 and OP 8

Receptor type: Observation Point

No glare found

PV array 6 and OP 9

Receptor type: Observation Point
No glare found

PV array 6 and OP 10

Receptor type: Observation Point
No glare found

PV array 6 and OP 11

Receptor type: Observation Point
No glare found

PV array 6 and OP 12

Receptor type: Observation Point
No glare found

PV array 6 and OP 13

Receptor type: Observation Point
No glare found

PV array 6 and OP 14

Receptor type: Observation Point
No glare found

PV array 6 and OP 15

Receptor type: Observation Point
No glare found

PV array 6 and OP 16

Receptor type: Observation Point
No glare found

PV array 6 and OP 17

Receptor type: Observation Point
No glare found

PV array 6 and OP 18

Receptor type: Observation Point
No glare found

PV array 6 and OP 19

Receptor type: Observation Point
No glare found

PV array 6 and OP 20

Receptor type: Observation Point
No glare found

PV array 6 and OP 21

Receptor type: Observation Point
No glare found

PV array 6 and OP 22

Receptor type: Observation Point
No glare found

PV array 6 and OP 23

Receptor type: Observation Point
No glare found

PV array 6 and OP 24

Receptor type: Observation Point
No glare found

PV array 6 and OP 25

Receptor type: Observation Point
No glare found

PV array 6 and OP 26

Receptor type: Observation Point
No glare found

PV array 6 and OP 27

Receptor type: Observation Point
No glare found

PV array 6 and OP 28

Receptor type: Observation Point
No glare found

PV array 6 and OP 29

Receptor type: Observation Point
No glare found

PV array 6 and OP 30

Receptor type: Observation Point
No glare found

PV array 6 and OP 31

Receptor type: Observation Point
No glare found

PV array 6 and OP 32

Receptor type: Observation Point
No glare found

PV array 6 and OP 33

Receptor type: Observation Point
No glare found

PV array 6 and OP 34

Receptor type: Observation Point
No glare found

PV array 6 and OP 35

Receptor type: Observation Point
No glare found

PV array 6 and OP 36

Receptor type: Observation Point
No glare found

PV array 6 and OP 37

Receptor type: Observation Point
No glare found

PV array 6 and OP 38

Receptor type: Observation Point
No glare found

PV array 6 and OP 39

Receptor type: Observation Point
No glare found

PV array 6 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 7 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 7 and Dalton Road

Receptor type: Route

No glare found

PV array 7 and Goodsprings Road

Receptor type: Route

No glare found

PV array 7 and Grey Road

Receptor type: Route

No glare found

PV array 7 and Marion Road

Receptor type: Route

No glare found

PV array 7 and OP 1

Receptor type: Observation Point

No glare found

PV array 7 and OP 2

Receptor type: Observation Point

No glare found

PV array 7 and OP 3

Receptor type: Observation Point

No glare found

PV array 7 and OP 4

Receptor type: Observation Point

No glare found

PV array 7 and OP 5

Receptor type: Observation Point

No glare found

PV array 7 and OP 6

Receptor type: Observation Point

No glare found

PV array 7 and OP 7

Receptor type: Observation Point

No glare found

PV array 7 and OP 8

Receptor type: Observation Point

No glare found

PV array 7 and OP 9

Receptor type: Observation Point
No glare found

PV array 7 and OP 10

Receptor type: Observation Point
No glare found

PV array 7 and OP 11

Receptor type: Observation Point
No glare found

PV array 7 and OP 12

Receptor type: Observation Point
No glare found

PV array 7 and OP 13

Receptor type: Observation Point
No glare found

PV array 7 and OP 14

Receptor type: Observation Point
No glare found

PV array 7 and OP 15

Receptor type: Observation Point
No glare found

PV array 7 and OP 16

Receptor type: Observation Point
No glare found

PV array 7 and OP 17

Receptor type: Observation Point
No glare found

PV array 7 and OP 18

Receptor type: Observation Point
No glare found

PV array 7 and OP 19

Receptor type: Observation Point
No glare found

PV array 7 and OP 20

Receptor type: Observation Point
No glare found

PV array 7 and OP 21

Receptor type: Observation Point
No glare found

PV array 7 and OP 22

Receptor type: Observation Point
No glare found

PV array 7 and OP 23

Receptor type: Observation Point
No glare found

PV array 7 and OP 24

Receptor type: Observation Point
No glare found

PV array 7 and OP 25

Receptor type: Observation Point
No glare found

PV array 7 and OP 26

Receptor type: Observation Point
No glare found

PV array 7 and OP 27

Receptor type: Observation Point
No glare found

PV array 7 and OP 28

Receptor type: Observation Point
No glare found

PV array 7 and OP 29

Receptor type: Observation Point
No glare found

PV array 7 and OP 30

Receptor type: Observation Point
No glare found

PV array 7 and OP 31

Receptor type: Observation Point
No glare found

PV array 7 and OP 32

Receptor type: Observation Point
No glare found

PV array 7 and OP 33

Receptor type: Observation Point
No glare found

PV array 7 and OP 34

Receptor type: Observation Point
No glare found

PV array 7 and OP 35

Receptor type: Observation Point
No glare found

PV array 7 and OP 36

Receptor type: Observation Point
No glare found

PV array 7 and OP 37

Receptor type: Observation Point
No glare found

PV array 7 and OP 38

Receptor type: Observation Point
No glare found

PV array 7 and OP 39

Receptor type: Observation Point
No glare found

PV array 7 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 8 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 8 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 8 and Dalton Road

Receptor type: Route

No glare found

PV array 8 and Goodsprings Road

Receptor type: Route

No glare found

PV array 8 and Grey Road

Receptor type: Route

No glare found

PV array 8 and Marion Road

Receptor type: Route

No glare found

PV array 8 and OP 1

Receptor type: Observation Point

No glare found

PV array 8 and OP 2

Receptor type: Observation Point

No glare found

PV array 8 and OP 3

Receptor type: Observation Point

No glare found

PV array 8 and OP 4

Receptor type: Observation Point

No glare found

PV array 8 and OP 5

Receptor type: Observation Point

No glare found

PV array 8 and OP 6

Receptor type: Observation Point

No glare found

PV array 8 and OP 7

Receptor type: Observation Point

No glare found

PV array 8 and OP 8

Receptor type: Observation Point

No glare found

PV array 8 and OP 9

Receptor type: Observation Point
No glare found

PV array 8 and OP 10

Receptor type: Observation Point
No glare found

PV array 8 and OP 11

Receptor type: Observation Point
No glare found

PV array 8 and OP 12

Receptor type: Observation Point
No glare found

PV array 8 and OP 13

Receptor type: Observation Point
No glare found

PV array 8 and OP 14

Receptor type: Observation Point
No glare found

PV array 8 and OP 15

Receptor type: Observation Point
No glare found

PV array 8 and OP 16

Receptor type: Observation Point
No glare found

PV array 8 and OP 17

Receptor type: Observation Point
No glare found

PV array 8 and OP 18

Receptor type: Observation Point
No glare found

PV array 8 and OP 19

Receptor type: Observation Point
No glare found

PV array 8 and OP 20

Receptor type: Observation Point
No glare found

PV array 8 and OP 21

Receptor type: Observation Point
No glare found

PV array 8 and OP 22

Receptor type: Observation Point
No glare found

PV array 8 and OP 23

Receptor type: Observation Point
No glare found

PV array 8 and OP 24

Receptor type: Observation Point
No glare found

PV array 8 and OP 25

Receptor type: Observation Point
No glare found

PV array 8 and OP 26

Receptor type: Observation Point
No glare found

PV array 8 and OP 27

Receptor type: Observation Point
No glare found

PV array 8 and OP 28

Receptor type: Observation Point
No glare found

PV array 8 and OP 29

Receptor type: Observation Point
No glare found

PV array 8 and OP 30

Receptor type: Observation Point
No glare found

PV array 8 and OP 31

Receptor type: Observation Point
No glare found

PV array 8 and OP 32

Receptor type: Observation Point
No glare found

PV array 8 and OP 33

Receptor type: Observation Point
No glare found

PV array 8 and OP 34

Receptor type: Observation Point
No glare found

PV array 8 and OP 35

Receptor type: Observation Point
No glare found

PV array 8 and OP 36

Receptor type: Observation Point
No glare found

PV array 8 and OP 37

Receptor type: Observation Point
No glare found

PV array 8 and OP 38

Receptor type: Observation Point
No glare found

PV array 8 and OP 39

Receptor type: Observation Point
No glare found

PV array 8 and OP 40

Receptor type: Observation Point
No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0
OP 34	0	0.0	0	0.0
OP 35	0	0.0	0	0.0
OP 36	0	0.0	0	0.0
OP 37	0	0.0	0	0.0
OP 38	0	0.0	0	0.0
OP 39	0	0.0	0	0.0
OP 40	0	0.0	0	0.0

PV array 9 and Coleman Crider Road

Receptor type: Route

No glare found

PV array 9 and Dalton Road

Receptor type: Route

No glare found

PV array 9 and Goodsprings Road

Receptor type: Route

No glare found

PV array 9 and Grey Road

Receptor type: Route

No glare found

PV array 9 and Marion Road

Receptor type: Route

No glare found

PV array 9 and OP 1

Receptor type: Observation Point

No glare found

PV array 9 and OP 2

Receptor type: Observation Point

No glare found

PV array 9 and OP 3

Receptor type: Observation Point

No glare found

PV array 9 and OP 4

Receptor type: Observation Point

No glare found

PV array 9 and OP 5

Receptor type: Observation Point

No glare found

PV array 9 and OP 6

Receptor type: Observation Point

No glare found

PV array 9 and OP 7

Receptor type: Observation Point

No glare found

PV array 9 and OP 8

Receptor type: Observation Point

No glare found

PV array 9 and OP 9

Receptor type: Observation Point

No glare found

PV array 9 and OP 10

Receptor type: Observation Point

No glare found

PV array 9 and OP 11

Receptor type: Observation Point

No glare found

PV array 9 and OP 12

Receptor type: Observation Point

No glare found

PV array 9 and OP 13

Receptor type: Observation Point

No glare found

PV array 9 and OP 14

Receptor type: Observation Point

No glare found

PV array 9 and OP 15

Receptor type: Observation Point

No glare found

PV array 9 and OP 16

Receptor type: Observation Point

No glare found

PV array 9 and OP 17

Receptor type: Observation Point

No glare found

PV array 9 and OP 18

Receptor type: Observation Point

No glare found

PV array 9 and OP 19

Receptor type: Observation Point

No glare found

PV array 9 and OP 20

Receptor type: Observation Point

No glare found

PV array 9 and OP 21

Receptor type: Observation Point

No glare found

PV array 9 and OP 22

Receptor type: Observation Point

No glare found

PV array 9 and OP 23

Receptor type: Observation Point

No glare found

PV array 9 and OP 24

Receptor type: Observation Point

No glare found

PV array 9 and OP 25

Receptor type: Observation Point

No glare found

PV array 9 and OP 26

Receptor type: Observation Point

No glare found

PV array 9 and OP 27

Receptor type: Observation Point

No glare found

PV array 9 and OP 28

Receptor type: Observation Point

No glare found

PV array 9 and OP 29

Receptor type: Observation Point
No glare found

PV array 9 and OP 30

Receptor type: Observation Point
No glare found

PV array 9 and OP 31

Receptor type: Observation Point
No glare found

PV array 9 and OP 32

Receptor type: Observation Point
No glare found

PV array 9 and OP 33

Receptor type: Observation Point
No glare found

PV array 9 and OP 34

Receptor type: Observation Point
No glare found

PV array 9 and OP 35

Receptor type: Observation Point
No glare found

PV array 9 and OP 36

Receptor type: Observation Point
No glare found

PV array 9 and OP 37

Receptor type: Observation Point
No glare found

PV array 9 and OP 38

Receptor type: Observation Point
No glare found

PV array 9 and OP 39

Receptor type: Observation Point
No glare found

PV array 9 and OP 40

Receptor type: Observation Point
No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

Attachment B

GlareGauge Modeling Results – Golden Solar, LLC - Project Design Roadway and Residential Locations 41-68

FORGESOLAR GLARE ANALYSIS

Project: **Golden Solar, LLC**

Single Axis Tracking

Site configuration: **Golden Solar LLC Arrays -2**

Site description: Single Axis Tracker

Created 07 Jul, 2022
Updated 07 Jul, 2022
Time-step 1 minute
Timezone offset UTC-6
Site ID 71931.12518
Category 10 MW to 100 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 11	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 12	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 13	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 14	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Coleman Crider Road	0	0.0	0	0.0
Dalton Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Goodsprings Road	0	0.0	0	0.0
Grey Road	0	0.0	0	0.0
Marion Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.168891	-88.015151	471.85	20.00	491.85
2	37.170806	-88.015129	481.62	20.00	501.62
3	37.171849	-88.014700	490.78	20.00	510.78
4	37.174700	-88.008339	521.21	20.00	541.21
5	37.173503	-88.007674	513.00	20.00	533.00
6	37.168918	-88.013730	479.01	20.00	499.02

Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	37.160249	-87.974446	472.55	20.00	492.55
2	37.161506	-87.974468	464.01	20.00	484.01
3	37.161514	-87.973277	478.64	20.00	498.64
4	37.160274	-87.973234	470.75	20.00	490.75

Attachment D
Property Value Impact Report

Attachment D, the Property Value Impact Report, is available as a separate document.

Attachment E Decommissioning Methodology

Exhibit H

Attachment E

Decommissioning Methodology

GOLDEN SOLAR

Contents

1. Introduction

Golden Solar, LLC (Golden Solar) is proposing to construct an up to 100-MW solar photovoltaic (PV) electricity generating facility in Caldwell County, Kentucky (Project). The operational life of the Project is anticipated to be approximately 30 years. This Decommissioning Methodology (Plan) describes the procedures and financial assurances associated with decommissioning the Project and has been created to support Golden Solar's application for a construction certificate from the Kentucky State Board on Electric Generation and Transmission Siting.

The goals of the Plan are to provide procedures for restoring the site to its original use, based on the recent historical land use of the property, or to other economic land uses as desired by the relevant landowner, at the end of the Project's operational life. The Plan describes procedures for the removal of Project components. The components of the Project are described in detail in Exhibit B, and the preliminary layout is presented in Exhibit J.

2. Project Components

Exhibit B and Exhibit J provide detailed information regarding the anticipated location of each of the Project components and a description of each component. The Project generally consists of the equipment and infrastructure listed below:

- Steel piers and racking;
- PV panels;
- Inverters;
- Electrical collection lines;
- Access roads;
- Fencing, gating, and safety features;
- An operations and maintenance (O&M) building;
- Weather stations; and
- A Project collection substation.

3. Regulatory Compliance

Prior to the commencement of decommissioning, Golden Solar will perform the appropriate due diligence requirements and obtain the necessary local, state, and federal approvals to complete decommissioning activities. To mitigate any environmental impact from decommissioning, Golden Solar will identify the permits and approvals necessary to maintain regulatory compliance in the future regulatory environment. Anticipated types of evaluations and requirements may include the following:

- Review of on-site jurisdictional status and potential impacts to wetlands and waterbodies to comply with the Clean Water Act;

- Consultation with the United States Fish and Wildlife Service to evaluate compliance with the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and any other relevant regulations at the time of decommissioning;
- Consultation with the Kentucky Energy and Environment Cabinet for compliance with any pertinent state regulatory requirements;
- Completion of a Phase I Environmental Site Assessment in support of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) protection;
- Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP);
- Caldwell County building, road, discharge, or erosion control permits (as necessary); and
- Special state or local hauling permits (as necessary).

4. Decommissioning

The Project will be decommissioned at the end of its useful life. The Project is presumed to be at the end of its useful life if the Project generates no electricity for a continuous period of 12 months. At least 30 days prior to the commencement of decommissioning activities, Golden Solar will notify Caldwell County officials of the upcoming decommissioning. The following general decommissioning activities will occur:

- Removal of panels;
- Removal of weather stations, inverters, electrical equipment, racking, and scrap;
- Removal of piles to a depth of at least 3 feet;
- Removal of access roads;
- Removal of electrical collection lines to a depth of at least 3 feet;
- Removal of fencing; and
- Removal of the collection substation.

Some components may be left in place under certain circumstances. Electrical lines that will not impact future use of the Project area (at least 3 feet in depth) may be left in place per renewable industry practices. Steel piles, where full removal is unattainable, may be cut and left in place at a depth of 3 feet or greater below the ground surface. The Project collection substation could remain, should another agreement necessitate its continued use. Utility-owned infrastructure at the substation is not subject to decommissioning by Golden Solar. Additionally, landowners may desire that private access roads remain in place for their use. In that case, Golden Solar will obtain a written request from the landowner for a road or structure (such as the O&M building) to remain in place.

5. Materials Salvage, Recycling, and Disposal

Many components of the Project, such as racking, wiring, piles, and panels, retain value over time. Panels may be reused elsewhere, albeit with slightly lower efficiency, or components may be broken down and recycled. Solar panel and equipment recycling is rapidly evolving and can be handled by a combination of entities such as certain manufacturers, PV Cycle (an international waste program founded by and for the PV industry), and waste management companies. More than 90 percent of the semiconductor material and glass can be reused in new modules and products. Other waste materials that hold no value will be recycled or disposed of via a licensed solid waste disposal facility.

6. Site Restoration

Following the completion of decommissioning activities, it is anticipated that the site will primarily be converted back to its pre-construction land uses. The land will be graded as necessary, though minimal grading is expected to be required, and will be decompacted to allow for productive agricultural use. Decommissioning of the Project, including the removal of materials followed by site restoration, is expected to be completed in approximately 12-18 months.

7. Cost Estimate

Golden Solar will contract with a qualified engineering consultant to prepare a cost estimate for the decommissioning activities for the entire Project, based on the final site plan. Golden Solar will submit a final decommissioning plan and cost estimate to Caldwell County prior to initiation.

8. Financial Assurance

If requested, Golden Solar will post a financial surety with Caldwell County as the obligee that is equal to the net cost of decommissioning the Project (decommissioning costs minus salvage value). Golden Solar will reevaluate decommissioning costs with a qualified engineering consultant every five years during the life of the Project.

Attachment F
Traffic Study

Golden Solar Facility Traffic Assessment

Kentucky State Board on Electric Generation and Transmission Application

Case No. 2020-00243

now

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Tables

Attachments

Acronyms

ADT	Average Daily Traffic
Applicant	Golden Solar, LLC
FHWA	Federal Highway Administration
Golden Solar	Golden Solar, LLC
MW_{ac}	Megawatt Alternating Current
O&M	Operations and Maintenance
Project	Golden Solar Facility

1 Introduction

1.1 Project Description

Golden Solar, LLC (Golden Solar), a wholly owned subsidiary of National Grid Renewables Development, LLC, is proposing to construct the Golden Solar Facility (Project), which will be an up to 100-megawatt (MW_{ac}) alternating current photovoltaic electricity generation facility. Project facilities will include solar modules, inverters, tracking racking, fencing, access roads, a substation, a switchyard, an operations and maintenance (O&M) building and facilities, below- and/or above-ground electrical collection lines, up to eight weather stations (up to 15 feet tall), and temporary construction laydown yards. The Project will be located on approximately 1,870 combined acres in Caldwell County between the towns of Fredonia and Princeton. No street address has been established at this time for the Project; the coordinates for the location are 37.16879°N and 87.98105°W. For interconnection, Golden Solar will construct a substation to connect to the North Princeton Switching Station owned by Louisville Gas and Electric Company and Kentucky Utilities Company. The Project substation will be located within the Project boundary, and an overhead generator tie line of approximately 300 feet in length will connect it to the point of interconnection. Vegetative buffers will consist of evergreen and/or deciduous trees and shrubs.

1.2 Existing Land Use and Site Conditions

According to the National Land Cover Database, the existing land use in the Project area is predominantly cultivated crops, grazing land, and undeveloped forest land (Figure 2). Narrow wooded corridors are located along streams, property boundaries, and fencerows (Figure 3). Farm buildings (silos, barns) and residential homes are also present in the Project area. The adjacent areas are characterized by agricultural, some commercial, undeveloped forest, residential, and surface mining (southwest) land uses.

2 Traffic Study

2.1 Existing Road Network and Traffic Conditions

Three major roadways are present near the Project area vicinity: I-69, KY-91, and KY-641 (Figure 3). KY-91 is a two-lane road that runs in a northwesterly path along (and partially intersecting) the southern border of the Project area. US-641 is a two-lane road that runs north and south approximately 1.5 mile west of the Project area. I-69 is a divided interstate highway that runs east and west approximately 3 miles southeast of the Project area. The average daily traffic (ADT) is the average number of vehicles traveling in two directions past a specific point or monitoring station in a 24-hour period. 11 ADT monitoring stations are located in the vicinity of the Project area—two along KY-91, two along US-641, one along I-69, one along KY-139, and five along less traveled county roads. The ADT information in the Project vicinity is summarized in Table 1 below.

Table 1 Average Daily Traffic

Station ID	Roadway	County	Milepoints	Distance from Project area	Average Daily Traffic (average of vehicles / 24 hours)
017542	CR-1373	Caldwell	0.133-0.246	900 ft southeast of Project area	0
017763	CR-1311	Caldwell	1.432-1.632	300 ft northeast of Project area	45
017558	CR-1303	Caldwell	0.089-0.289	6,900 ft southwest of Project area	96
017540	CR-1366	Caldwell	1.745-1.945	6,350 feet south of Project area	126
017032	KY-139	Caldwell	13.172-16.115	7,250 feet northeast of the Project area	1.079
017511	KY-91	Caldwell	13.905-15.776	11,920 feet northeast of Project area	2,465
017755	US-641	Caldwell	0.000-2.877	12,380 ft northwest of Project area	2,515
072016	US-641	Lyon	2.668–5.715	11,500 feet west of Project area	2,550
017750	KY-91	Caldwell	15.776-23.389	70 feet south of Project area	2,741
017565	I-69	Caldwell	73.694-79.771	16,500 feet southeast of Project area	9,000

Kentucky Transportation Cabinet 2022 (https://maps.kytc.ky.gov/trafficcounts/#)

2.2 Construction Traffic

Construction traffic will use existing county roadway systems to access the Project facilities. During construction, a temporary increase in traffic volume associated with travel by construction laborers, delivery of construction equipment and materials, and delivery of solar panel components and equipment is anticipated. Traffic during construction is estimated to be approximately 75 to 100 pickup trucks, cars, or other types of employee vehicles onsite during the duration of construction activities. Approximately 10 to 20 semi-trucks per day will be used to deliver facility components. Semi-truck delivery will vary per day depending on time of construction and delivery timeline of equipment. Overweight or oversized loads are unlikely. This increased traffic may be perceptible to area residents, but the slight increase in volume is not expected to affect traffic function. Slow-moving construction vehicles may also cause delays on smaller roads. However, these delays should be comparable to the impact of farm equipment during planting or harvest and will only occur during a relatively short construction delivery period.

2.2.1 Impact on Road Infrastructure

Significant degradation to the existing roadways is not anticipated for the proposed Project. The increase in localized traffic and the continued entry and exit of heavy trucks or equipment have the potential to result in additional wear on the existing roadway or shoulder of the two prospective entrances to the Project site.

Access drives and internal roads will be constructed or improved as needed to accommodate appropriate vehicles and equipment to construct the proposed solar facility. Internal roads will be compacted gravel, which may result in an increase in airborne dust particles. During construction, water may be applied to the internal road system to reduce dust generation.

2.3 Operational and Maintenance Traffic

After construction is complete, traffic impacts during the operations phase of the Project will be negligible. A small maintenance crew will regularly drive through the area in pickup trucks to monitor and maintain the facilities as needed, but traffic function will not be impacted as a result.

2.4 Traffic Summary and Conclusions

During construction, the traffic volume will temporarily increase because of the delivery of construction materials and personnel. Appropriate signage and traffic directing will occur as necessary to increase driver safety and reduce risk of collisions for approaching traffic. No damages to the existing roadway infrastructure are anticipated. For facility operation and maintenance, a small maintenance crew will regularly travel through the area in pickup trucks, but traffic function will not be impacted as a result.

3 Fugitive Dust Impacts

Activities that disturb land during the construction of the Project may temporarily add airborne materials. To reduce the contribution of airborne materials, application of water and covering of spoils may occur. The use of water for dust control as required for the Project is authorized under the Kentucky Pollutant Discharge Elimination System as a non-stormwater discharge activity.

4 Impacts to Rail

The Fredonia Valley railroad track extends in a southeasterly direction along the southern Project border (https://transportation.ky.gov/MultimodalFreight/Pages/Railroads.aspx). Construction traffic will use the existing county roadway system to access the Project facilities. Railways may be used for construction deliveries by vendors, such as the main power transformers. The Class I railroad will not be crossed by the collector line or other Project features. Therefore, no impacts to the rail system are anticipated.

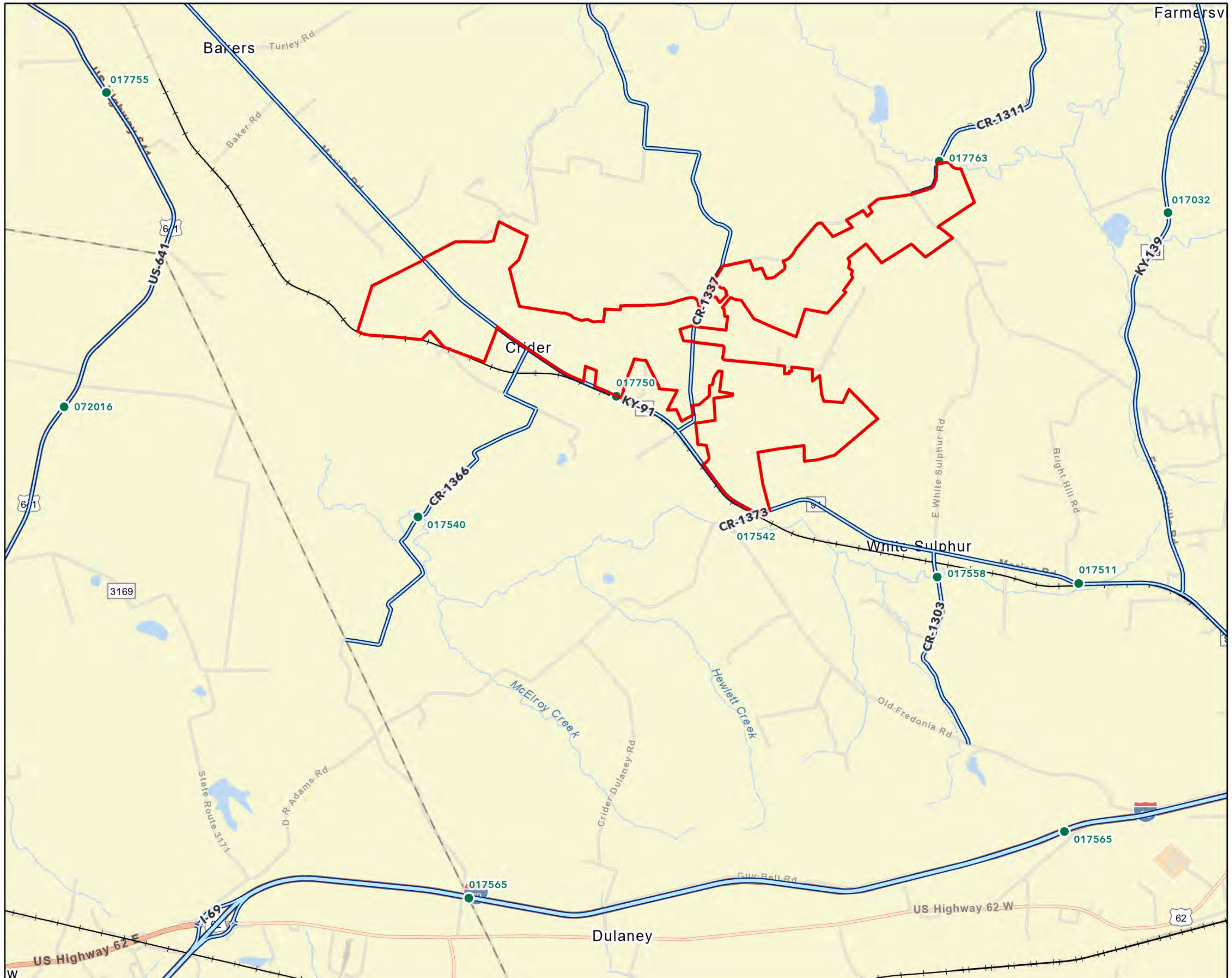


Figure No.
1

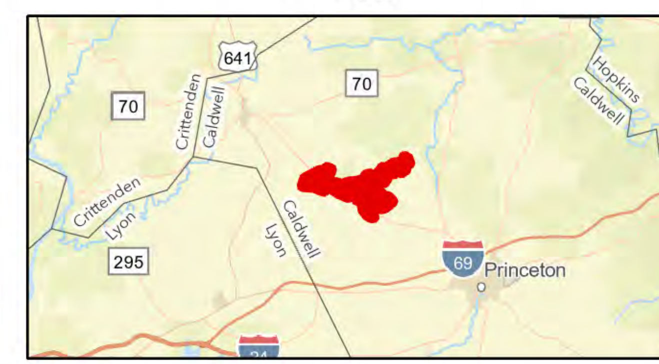
Title
Traffic Study Figure

Client/Project
Golden Solar Project

Project Location
Caldwell County, Kentucky

Project Area
Major Roads
Railway
Traffic Station

0 0.55 1.1 Miles
(At original document size of 11x17)
1:49,728



Notes
1. NAD 1983 2011 StatePlane Kentucky FIPS 1600 Ft US
2. Basemap Sources: Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
3. Data Source: Kentucky Transportation Cabinet (KYTC)

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Revised: 8/23/2022 By: leonard.luz
Path: K:\Project_Data\Geronimo\Golden\Projects\Mxds\Golden.aprx

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

TOGETHER we can do great things

Community

When we say community, we don't just mean the neighborhoods that people call home. We mean everyone and everything with a stake in the work that we do—from our Stantec and industry colleagues to the clients we collaborate with and the people and places we impact.

Whether creating, sustaining, or revitalizing a community, we help diverse cultures and perspectives work together toward shared successes.

Although our work helps to create physical communities, our ultimate goal is to create something far more meaningful—a sense of community.

Creativity

For us, creativity is driven by purpose. Knowing that transformation is truly possible inspires us to approach every situation with a fresh perspective.

Our inventive and collaborative approach to problem-solving helps bring big ideas to life through creative solutions.

Whether our contribution is a design that strikes the perfect balance between function and aesthetics, a feat of engineering that redefines what's possible, or a project management approach that delivers results, we strive for outcomes that transcend the challenges they solve and shape the communities we serve for the better.

Client Relationships

We're better together. This belief shapes how we collaborate with our clients, our partners, and our communities.

We listen so we can deeply understand our clients' needs, communicate with purpose so we maintain alignment, and remain open and flexible so we never miss an opportunity to strengthen a project and positively transform a community.

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Attachment G
Wetland Delineation Report


Regulated Waters Delineation Report

Golden Solar, Caldwell County, Kentucky

August 2021

Cardno®

Document Information

Prepared for	Golden Solar LLC
Client Contact	Courtney Pelissero
Project Name	Regulated Waters Delineation Report Golden Solar, Caldwell County, Kentucky
Project Number	E320201200
Cardno Contact	Bruce Moreira
Date	August 2021

Prepared for:

Golden Solar LLC
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Prepared by:

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Appendices

Acronyms

APA	Administrative Procedure Act
BF	Bank Full
CFR	Code of Federal Regulations
CWA	Clean Water Act
DBH	Diameter at Breast Height
DP	Data Point
EPA	U.S. Environmental Protection Agency
ETR	Endangered, Threatened, and Rare
FAC	Facultative Plant
FACU	Facultative Upland Plant
FACW	Facultative Wetland Plant
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographical Information System

Acronyms (continued)

KAR	Kentucky Administrative Regulations
KDOW	Kentucky Division of Water
MS4	Municipal Separate Storm Water Sewer Systems
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
NWP	Nationwide Permit
NWPL	National Wetland Plant List
OBL	Obligate Wetland Plant
OHWM	Ordinary High Water Mark
PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
PLSS	Public Land Survey Section
PSS	Palustrine Shrub Scrub Wetland
RGP	Regional General Permit
SNE	Significant Nexus
SWANCC	Solid Waste Agency of Northern Cook County
TNW	Traditional Navigable Water
TOB	Top of Bank
UPL	Upland Plant
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the United States
WQC	Water Quality Certification

1 Introduction

Cardno was contracted to perform a regulated waters delineation, including wetlands and streams, which are located at the Golden Solar Study Area in Caldwell County, Kentucky (Figure 1, Appendix A). Field work was performed on April 8 - 10, 2020 and May 27, 2021. The total size of the Study Area was approximately 1,755.4 acres. The Study Area was primarily agricultural with some prairie restoration and woodland. Ten wetlands, thirty-five streams, and fifteen ponds were identified.

This report identifies the jurisdictional status of the Study Area based on Cardno's best professional understanding and interpretation of the Corps of Engineers' Wetland Delineation Manual (Environmental Laboratory, 1987) and U.S. Army Corps of Engineers' (USACE) guidance documents and regulations. Jurisdictional determinations for other "waters of the U.S." were made based on definitions and guidance found in 33 CFR 328.3, USACE Regulatory Guidance Letters, and the wetland delineation manual. The USACE administers Section 404 of the Clean Water Act (CWA), which regulates the discharge of fill or dredged material into all "waters of the U.S.," and is the regulatory authority that must make the final determination as to the jurisdictional status of the Study Area.

2 Regulatory Definitions

2.1 Waters of the United States

“Waters of the U.S.” are within the jurisdiction of the USACE under the CWA. “Waters of the U.S.” is a broad term, which includes waters that are used or could be used for interstate commerce. This includes wetlands, ponds, lakes, territorial seas, rivers, tributary streams including any definable intermittent waterways, and some ditches below the ordinary high water mark (OHWM). Also included are manmade water bodies such as quarries and ponds, which are no longer actively being mined or constructed and are connected to other “waters”. Wetlands, mudflats, vegetated shallows, riffle and pool complexes, coral reefs, sanctuaries, and refuges are all considered special aquatic sites which involve more rigorous regulatory permitting requirements. A specific, detailed definition of “waters of the U.S.” can be found in the Federal Register (33 CFR 328.3).

On January 9, 2001, the U.S. Supreme Court issued a decision, Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers (No. 99-1178). The decision reduced the regulation of isolated wetlands under Section 404 of the CWA, which assigned the USACE authority to issue permits for the discharge of dredge or fill material into "waters of the U.S.". Prior to the SWANCC decision, the USACE had adopted a regulatory definition of "waters of the U.S." that afforded federal protection for almost all of the nation's wetlands. The Supreme Court decision interpreted that the USACE’s jurisdiction was restricted to navigable waters, their tributaries, and wetlands that are adjacent to these navigable waterways and tributaries. The decision leaves the majority of "isolated" wetlands unregulated by the CWA. Therefore, most wetlands that are not adjacent to, or contiguous with, any other “waters of the U.S.” via a surface drain such as a swale, ditch, or stream are considered isolated and thus no longer jurisdictional by the USACE.

On June 19, 2006, the U.S. Supreme Court issued decisions in regards to John A. Rapanos v. United States (No. 04-1034) and June Carabell v. United States (04-1384), et al. The plurality decision created two ‘tests’ for determining CWA jurisdiction: the permanent flow of water test (set out by Justice Scalia) and the “significant nexus” test (set out by Justice Kennedy). On June 5, 2007 the USACE and U.S. Environmental Protection Agency (EPA) issued joint guidance on how to interpret and apply the Court’s ruling. According to this guidance, the USACE will assert jurisdiction over traditionally navigable waters, adjacent wetlands, and non-navigable tributaries of traditionally navigable waters that have “relatively permanent” flow, and wetlands that border these waters, regardless of whether or not they are separated by roads, berms, and similar barriers. In addition, the USACE will use a case-by-case “significant nexus” analysis to determine whether waters and their adjacent wetlands are jurisdictional. A “significant nexus” can be found where waters, including adjacent wetlands, alter the physical, biological, or chemical integrity of the traditionally navigable water based on consideration of several factors.

On June 29, 2015 a new Clean Water Rule was entered into the Federal Register (40 CFR Parts 110, 112, 116, et al. Clean Water Rule: Definition of ‘‘waters of the United States’’; Final Rule). This report will refer to this Rule as “June 29, 2015 WOTUS Rule”. This Rule included exact distances as it relates to jurisdictional adjacent waters, including the following: waters within 100 ft. of jurisdictional waters; waters within the 100-year floodplain to a maximum of 1,500 feet from the OHWM; waters within the 100-year floodplain with a significant nexus (SNE) to a traditionally navigable water (TNW); and waters with a SNE within 4,000 ft. of jurisdictional waters.

The June 29, 2015 WOTUS Rule was partially stayed on October 9, 2015, and this resulted in a patchwork of states which used the June 29, 2015 rule and some states that returned to the previous jurisdictional interpretations (post-Rappanos).

On October 22, 2019 the EPA and the USACE published a rule to formally rescind the June 29, 2015 WOTUS Rule (40 CFR Parts 110, et.al. Definition of "Waters of the United States" – Recodification of Pre-Existing Rules). This action restored the regulatory environment which was in place prior to 2015.

On April 21, 2020, the EPA and USACE published the Navigable Waters Protection Rule to define "waters of the United States" (WOTUS) in the Federal Register. This rule becomes effective on June 22, 2020. The rule limits the federal regulatory authority to wetlands adjacent to or directly abutting a jurisdictional stream, and to only streams considered perennial or intermittent.

On August 30, 2021, the previous April 21, 2020 WOTUS was stayed nationwide in federal court. The USACE has returned to using pre-2015 WOTUS standards for jurisdictional determinations until further guidance is issued.

2.2 Waters of the Commonwealth (Kentucky)

"Waters of the Commonwealth" are within the jurisdiction of the Kentucky Division of Water (KDOW). They are defined as any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes, and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction. Under Commonwealth water quality standards, however, only "surface waters" are regulated and subterranean waters are limited to those flowing in well-defined channels and having a demonstrable hydrologic connection with the surface.

KDOW relies on the USACE decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated. Isolated wetlands do not have a permitting mechanism in the Commonwealth and in theory would still fall under the Commonwealth's anti-degradation standards, but in practice isolated wetlands are not regulated.

Special-use waters are waters listed in Kentucky Administrative Regulations (KAR) that are worthy of additional protection. These special-uses include cold water aquatic habitats, outstanding state resource waters, outstanding national resource waters, exceptional waters, reference reach waters, state wild rivers and federal wild and scenic rivers. Outstanding National Resource Water and Exceptional Water are anti-degradation categories that apply to some waters, and convey additional protections to these resources. Additional information on these categories can be found in Section 401 KAR.

2.3 Wetlands

Wetlands are a category of "waters of the U.S." for which a specific identification methodology has been developed. As described in detail in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987), wetland boundaries are delineated using three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. In addition to the criteria defined in the 1987 Manual, the procedures described in the *Regional Supplement to the Corps of Engineers*

Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Environmental Laboratory, 2010) were used to evaluate the Study Area for the presence of wetlands.

2.3.1 Hydrophytic Vegetation

On June 1, 2012, the National Wetland Plant List (NWPL), formerly called the National List of Plant Species that Occur in Wetlands (Reed 1988), went into effect after being released by the U.S. Army Corps of Engineers (USACE) as part of an interagency effort with the U.S. Fish and Wildlife Service (USFWS), the U.S. EPA, and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (Lichvar and Kartesz, 2009). This list is periodically updated, with the most recently published list dated 2018. The NWPL, along with the information implied by its wetland plant species status ratings, provides general botanical information about wetland plants and is used extensively in wetland delineation, restoration, and mitigation efforts. The NWPL consists of a comprehensive list of wetland plant species that occur within the United States along with their respective wetland indicator statuses by region. An indicator status reflects the likelihood that a particular plant species occurs in a wetland or upland (Lichvar et al. 2012). Definitions of the five indicator categories are presented below.

OBL (Obligate Wetland Plants): almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

FACW (Facultative Wetland Plants): usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

FAC (Facultative Plants): occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.

FACU (Facultative Upland Plants): usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.

UPL (Upland Plants): almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

According to the USACE's Eastern Mountains and Piedmont Regional Supplement, plants that are rated as FAC, FACW, or OBL are classified as wetland plant species. The percentage of dominant wetland species in each of the four vegetation strata (tree, shrub/sapling, herbaceous, and woody vine) in the sample area determines the hydrophytic (wetland) status of the plant community. Dominant species are chosen independently from each stratum of the community. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total.

For the purposes of determining dominant plant species, the four vegetation strata are defined. Trees consist of woody species 3 inches or greater in diameter at breast height (DBH). Shrubs and saplings are woody species that are over 1 meter in height and less than 3 inches DBH. Herbaceous species consist of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 1 meter tall. Woody vines consist of vine species greater than 1 meter in height, such as wild grapes.

2.3.2 Hydric Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. In general, hydric soils are flooded, ponded, or saturated for a week or more during the growing season when soil temperatures are above 32 degrees Fahrenheit. The anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, which are used to differentiate hydric from non-hydric soils.

In this report, soil colors are described using the Munsell notation system. This method of describing soil color consists of separate notations for hue, value, and chroma that are combined in that order to form the color designation. The hue notation of a color indicates its relation to red, yellow, green, blue, and purple; the value notation indicates its lightness, and the chroma notation indicates its strength or departure from a neutral of the same lightness.

The symbol for hue consists of a number from 1 to 10, followed by the letter abbreviation of the color. Within each letter range, the hue becomes more yellow and less red as the numbers increase. The notation for value consists of numbers from 0 for absolute black, to 10 for absolute white. The notation for chroma consists of numbers beginning with /0 for neutral grays and increasing at equal intervals. A soil described as 10YR 3/1 soil is more gray than a soil designated 10YR 3/6.

2.3.3 Wetland Hydrology

Wetland hydrology is defined as the presence of water for a significant period of time at or near the surface (within the root zone) during the growing season. Wetland hydrology is present only seasonally in many cases, and is often inferred by indirect evidence. Hydrology is controlled by such factors as seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage. Primary indicators of hydrology are inundation, soil saturation in the upper 12 inches of the soil, watermarks, sediment deposits, and drainage patterns. Secondary indicators such as oxidized root channels in the upper 12 inches of the soil, water-stained leaves, local soil survey data, and the FAC-neutral vegetation test are sometimes used to identify hydrology. A primary indicator or two or more secondary indicators are required to establish a positive indication of hydrology.

2.3.4 Wetland Definition Summary

In general, an area must meet all three criteria to be classified as a wetland. In certain problem areas such as seasonal wetlands, which are not wet at all times, or in recently disturbed (atypical) situations, areas may be considered a wetland if only two criteria are met. In special situations, an area that meets the wetland definition may not be within the USACE's jurisdiction due to a specific regulatory exemption.

2.4 Streams, Rivers, Watercourses & Jurisdictional Ditches

With non-tidal waters, in the absence of adjacent wetlands, the extent of the USACE's jurisdiction is defined by the OHWM. USACE regulations define the term "ordinary high water mark" for purposes of the CWA lateral jurisdiction at 33 CFR 328.3(e), which states:

> The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Streams, rivers, watercourse, and ditches within the Study Area were evaluated using the above definition and documented. Waterways that did exhibit an OHWM were recorded and evaluated using the Kentucky Department of Water's stream assessment form. The scores are listed in the summary table in section 6 and the data sheets are included in Appendix D.

3 Background Information

3.1 Existing Maps

Several sources of information were consulted to identify potential wetlands and wetland soil units on the site. These include the USFWS's *National Wetland Inventory* (NWI), the USGS's *National Hydrography Dataset* (NHD), and the NRCS *Soil Survey* for this county. These maps identify potential wetlands and wetland soil units on the site. The NHD maps are used to identify low-lying areas, historical waterways, drainage patterns, and potential surface waters. The NHD maps are not field verified, and do not always account for human alteration such as ditching and tiling. The NWI maps were prepared from high altitude photography and in most cases were not field checked. Because of this, wetlands are sometimes erroneously identified, missed, or misidentified. Additionally, the criteria used in identifying these wetlands were different from those currently used by the USACE. The county soil maps, on the other hand, were developed from actual field investigations. However, they address only one of the three required wetland criteria and may reflect historical conditions rather than current site conditions. The resolution of the soil maps limits their accuracy as well. The mapping units are often generalized based on topography and many mapping units contain inclusions of other soil types for up to 15 percent of the area of the unit. The USACE does not accept the use of either of these maps to make wetland determinations.

3.1.1 **<u>National Wetland Inventory</u>**

The NWI map of the area (Figure 2) identified twenty-two (22) wetland complexes within the Study Area.

3.1.2 **<u>National Flood Hazard Layer</u>**

The FEMA FIRMette map of the area (Figure 3) identified a 100-year floodplain associated with Skin Frame Creek, Black Creek, Donaldson Creek, an unnamed tributary to Skin Frame Creek, and an unnamed tributary to Donaldson Creek.

3.1.3 **<u>Stream Stats Basin Analysis</u>**

The Study Area is within an excluded area polygon in the StreamStats web application due to the Karst topography (Figure 3).

3.1.4 **<u>National Hydrography Dataset</u>**

The NHD map of the area (Figure 4) identified fifteen (15) surface waters within the Study Area.

3.1.5 Soil Survey

The NRCS Soil Survey of Caldwell County identified twenty-four (24) soil series on the site (Figure 4). The following table identifies the soil unit symbol, soil unit name, and whether or not the soil type contains components that meet the hydric soil criteria.

Table 3-1 Soil Types Within the Golden Solar Study Area

Symbol	Description	Hydric
CrA	Crider silt loam, 0 to 2 percent slopes	No
CrB2	Crider silt loam, 2 to 6 percent slopes, eroded	No
CrC2	Crider silt loam, 6 to 12 percent slopes, eroded	No
CrC3	Crider silt loam, 6 to 12 percent slopes, severely eroded	No
CrD2	Crider silt loam, 12 to 20 percent slopes, eroded	No
CtE3	Crider-Baxter complex, 12 to 30 percent slopes, severely eroded	No
DwF	Dekalb-Westmoreland – Gilpin complex, 20 to 60 percent slopes, very stony	No
EkB	Elk silt loam, 1 to 4 percent slopes, rarely flooded	No
FvD2	Fredonia-Vertrees complex, 12 to 20 percent slopes, eroded, rocky	No
Ld	Lindside silt loam, occasionally flooded	No
Lp	Lindside silt loam, ponded	No
LwE2	Lowell-Faywood complex, 12 to 30 percent slopes, eroded, very stony	No
NhB2	Nicholson silt loam, 2 to 6 percent slopes, eroded	No
NhC3	Nicholson silt loam, 6 to 12 percent slopes, severely eroded	No
No	Nolin silt loam, occasionally flooded	No
Np	Nolin silt loam, ponded	No
RcE	Rock outcrop – Cynthiana complex, 20 to 40 percent slopes	No
uBelA	Belknap silt loam, 0 to 2 percent slopes, occasionally flooded	No
uBlaA	Blackford silt loam, 0 to 2 percent slopes, occasionally flooded	No
Ur	Urban Land	No
uZaD3	Zanesville silt loam, 12 to 20 percent slopes, severely eroded	No
W	Water	No
WgD	Westmoreland-Dekalb-Gilpin complex, 12 to 20 percent slopes, very stony	No
ZaC3	Zanesville silt loam, 6 to 12 percent slopes, severely eroded	No

3.2 Climate Data

A “typical year” considers the normal periodic range of precipitation and other climactic variables for that waterbody. Factors utilized in determining if conditions meet the definition of “typical year” includes comparing precipitation, drought and other climatic factors from a period of interest (e.g., from the past season or year) with the normal range of those factors that would be expected, based on the past 30 years of data. The data below provides information on drought conditions at the time of the field survey and antecedent precipitation.

The April 7, 2020 US Drought Monitor map for Kentucky indicated that the Study Area was not exhibiting drought conditions during the April 2020 field survey (US Drought Monitor 2020).

The May 27, 2021 US Drought Monitor map for Kentucky indicated that the Study Area was not exhibiting drought conditions during the May 2021 field survey (US Drought Monitor 2021).

The USACE’s Antecedent Precipitation Tool (version 1.0.19) compiles information from weather stations within 30 miles of the Study Area to determine if conditions were dry, normal, or wet using antecedent precipitation conditions

Table 3-1: Calculation of Normal Weather Conditions (WET) for April 9, 2020

30 Days Ending	<30%	>30%	Actual	Condition	Condition Value	Month Weight Value	Condition Value X Month Weight
2020-04-09	3.30	5.21	4.63	Normal	2	3	6
2020-03-10	3.42	5.97	6.13	Wet	3	2	6
2020-02-09	2.25	4.07	7.07	Wet	3	1	3
						*Sum:	15

*6 to 9: drier than normal
10 to 14: normal
15 to 18: wetter than normal

condition values:
(1) Dry
(2) Normal
(3) Wet

No precipitation occurred during the field survey from April 8 and 9, 2020. No rain occurred during the seven (7) days prior to the field survey and the most recent rain event (0.01 inches) occurred on 4/1/2020.

Conditions observed within the Study Area during the delineation completed from April 8 through 10, 2020 were considered to be wetter than normal for this time of year.

Table 3-2: Calculation of Normal Weather Conditions (WET) for May 27, 2021

30 Days Ending	<30%	>30%	Actual	Condition	Condition Value	Month Weight Value	Condition Value X Month Weight
2021-05-27	3.96	6.11	4.55	Nornal	2	3	6
2021-04-27	4.06	5.58	2.88	Dry	1	2	2
2021-03-28	3.29	4.81	5.65	Wet	3	1	3
						*Sum:	11

*6 to 9: drier than normal
10 to 14: normal
15 to 18: wetter than normal

condition values:
(1) Dry
(2) Normal
(3) Wet

No precipitation occurred during the field survey from May 27, 2021. A total of 0.02 inches of precipitation occurred the seven (7) days prior to the field survey and the most recent rain event (0.02 inches) occurred on 5/20/2021.

Conditions observed within the Study Area during the delineation completed on May 27, 2021 were considered to be normal for this time of year.

4 Methodology and Description

4.1 Regulated Waters Investigation

The delineation of regulated waters within the Study Area was based on the methodology described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region* (Environmental Laboratory, 2010) as required by current USACE policy.

Prior to the field work, the background information was reviewed to establish the probability and potential location of wetlands and regulated waters on the site. Next, a general reconnaissance of the Study Area was conducted to determine site conditions. The site was then walked with the specific intent of determining wetland and jurisdictional stream boundaries. Data stations were established at locations within and near the wetland areas to document soil characteristics, evidence of hydrology and dominant vegetation. Note that no attempt was made to examine a full soil profile to confirm any soil series designations. However, when possible, soils were examined to a depth of at least 16 inches to assess soil characteristics and site hydrology. Complete descriptions of typical soil series can be found in the soil survey for this county.

4.1.1 Site Photographs

Photographs of the site are located in Appendix B. These photographs are the visual documentation of site conditions at the time of inspection. The photographs are intended to provide representative visual samples of any wetlands or other special features found on the site.

4.1.2 Delineation Data Sheets

Where stations represent a wetland boundary point they are typically presented as paired data points, one each documenting the wetland and upland sides of the wetland boundary. The routine wetland delineation data sheets used in the jurisdictional delineation process are located in Appendix C. These forms are the written documentation of how representative sample stations met or did not meet each of the wetland criteria. For plant species included on the National Wetlands Plant List, nomenclature will follow their lead. For all other plants not listed in the NWPL, nomenclature will follow the USDA’s Plants Database. Data point locations are shown on Figure 5.

4.2 Technical Descriptions

Complete field data sheets from the site investigation are located in Appendix D. The site is located in Caldwell County, Kentucky, southeast of the Town of Fredonia and northwest of the City of Princeton along Marion Road (SR91) (Figure 1). The area investigated was approximately 1,755.4 acres. The Study Area was primarily agricultural with some prairie restoration and woodland.

4.2.1 Data Point and Wetland Descriptions

Wetland 0001 (0.12 Acre)

This wetland was an emergent wetland located in a depression in an agricultural field. No surface water connection with any "waters of the United States" was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.16.

Wetland Data Point

Data Point 0001 (DP0001)

Dominant vegetation in the vicinity of DP0001 included Frank's Sedge (*Carex frankii*, OBL), and Crested Sedge (*Carex cristatella*, FACW). In addition, non-dominant vegetation at the data point included Blunt Broom Sedge (*Carex tribuloides*, FACW), and Virginia Wild Rye (*Elymus virginicus*, FACW). This met the rapid test for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 5%, and a texture of clay loam. The soil at the data point was mapped as Nicholson silt loam, 2 to 6 percent slopes, eroded, and met the Depleted Matrix (F3) hydric soil criterion. The secondary indicators of hydrology observed included Surface Soil Cracks (B6), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 0002 (DP0002)

Dominant vegetation in the vicinity of DP0002 included Canadian Horseweed (*Erigeron canadensis*, FACU), and Kentucky Blue Grass (*Poa pratensis*, FACU). In addition, non-dominant vegetation at the data point included Broom-Sedge (*Andropogon virginicus*, FACU), Tall False Rye Grass (*Schedonorus arundinaceus*, FACU), Virginia Wild Rye (FACW), midland sedge (*Carex mesochorea*, UPL), and Tall Goldenrod (*Solidago altissima*, FACU). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 6/3 with concentrations in the matrix at 5%, and a texture of clay loam. The soil at the data point was mapped as Nicholson silt loam, 2 to 6 percent slopes, eroded and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Wetland 0002 (0.35 Acre)

This wetland was an emergent wetland located in a depression in an agricultural field. No surface water connection with any "waters of the United States" was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.16.

Wetland Data Point

Data Point 0003 (DP0003)

Dominant vegetation in the vicinity of DP0003 included Frank's Sedge (OBL) and Seedbox (*Ludwigia alternifolia*, FACW). In addition, non-dominant vegetation at the data point included Limestone-Meadow Sedge (*Carex granularis*, FACW). This met the rapid test for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 5%, and a texture of clay loam. The soil at the data point was mapped as Nicholson silt loam, 2 to 6 percent slopes, eroded, and met the Depleted Matrix (F3) hydric soil criterion. The indicators of hydrology observed included Algal Mat or Crust (B4), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 0004 (DP0004)

Dominant vegetation in the vicinity of DP0004 included Coral-Berry (*Symphoricarpos orbiculatus*, FACU) and Crested Sedge (FACW). In addition, non-dominant vegetation at the data point included Allegheny Blackberry (*Rubus allegheniensis*, FACU), Small-Spike False Nettle (*Boehmeria cylindrica*, FACW), Virginia Wild Rye (FACW), and Broom-Sedge (FACU). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 5%, and a texture of clay loam. The soil at the data point was mapped as Nicholson silt loam, 2 to 6 percent slopes, eroded, and met the Depleted Matrix (F3) hydric soil criterion. The only indicator of hydrology observed included the secondary indicator of the FAC-Neutral Test (D5). This data point did not qualify as a wetland.

Wetland 0003 (0.32 Acre)

This wetland was an emergent wetland located in a depression in an agricultural field. No surface water connection with any “waters of the United States” was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.16.

Wetland Data Point

Data Point 0005 (DP0005)

Dominant vegetation in the vicinity of DP0005 included Fall Panic Grass (*Panicum dichotomiflorum*, FACW). In addition, non-dominant vegetation at the data point included soybean (*Glycine max*, UPL). This met the rapid test for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 5%, and a texture of silt loam. The soil at the data point was mapped as Lindside silt loam, occasionally flooded, and met the Depleted Matrix (F3) hydric soil criterion. The secondary indicators of hydrology observed included Drainage Patterns (B10), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 0006 (DP0006)

Dominant vegetation in the vicinity of DP0006 included Sugar-Berry (*Celtis laevigata*, FACW), Coral-Berry (FACU), Spring Avens (*Geum vernum*, FACU), henbit deadnettle (*Lamium amplexicaule*, UPL), Common Chickweed (*Stellaria media*, UPL), and Sleepydick (*Ornithogalum umbellatum*, FACU). In addition, non-dominant vegetation at the data point included American Elm (*Ulmus americana*, FACW), and Rambler Rose (*Rosa multiflora*, FACU). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 4/4 with a texture of silt loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 0007 (DP0007)

Dominant vegetation in the vicinity of DP0007 included pignut hickory (*Carya glabra*, FACU), Sugar Maple (*Acer saccharum*, FACU), Sugar-Berry (FACW), Coral-Berry (FACU), Sticky-Willy (*Galium aparine*, FACU), May-Apple (*Podophyllum peltatum*, FACU), and common blue violet (*Viola sororia*, FAC). In addition, non-dominant vegetation at the data point included Sugar-Berry (FACW), Black Walnut (*Juglans nigra*, FACU), American Elm (FACW), White Ash (*Fraxinus americana*, FACU), and Common Chickweed (UPL). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 4/4 with a texture of silt loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 0008 (DP0008)

Dominant vegetation in the vicinity of DP0008 included Black Walnut (FACU), Coral-Berry (FACU), Common Chickweed (UPL), Sticky-Willy (FACU), Crow Garlic (*Allium vineale*, FACU), Eastern Woodland Sedge (*Carex blanda*, FAC), and Spreading Chervil (*Chaerophyllum procumbens*, FACW). In addition, non-dominant vegetation at the data point included Green Ash (*Fraxinus pennsylvanica*, FACW), and American Elm (FACW). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 7.5YR 4/4 with a texture of silt loam. The soil at the data point was mapped as Nicholson silt loam, 6 to 12 percent slopes, severely eroded and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Wetland 0101 (0.01 Acre)

This wetland was an emergent wetland located in a depression in a woodlot. No surface water connection with any "waters of the United States" was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figures 5.48.

Wetland Data Point

Data Point 0101 (DP0101)

Dominant vegetation in the vicinity of DP0101 included Black Elder (*Sambucus nigra*, FAC), Shallow Sedge (*Carex lurida*, OBL), and Great Ragweed (*Ambrosia trifida*, FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-20" had a matrix soil color of 10YR 4/4 with concentrations in the matrix at 10%, and a texture of clay loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded, and met the Redox Depressions (F8) hydric soil criterion. The indicators of hydrology observed included Drift Deposits (B3), Oxidized Rhizospheres on Living Roots (C3), Drainage Patterns (B10), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 0102 (DP0102)

Dominant vegetation in the vicinity of DP0102 included Black Elder (FAC) in multiple strata, Ash-Leaf Maple (*Acer negundo*, FAC), Curly Dock (*Rumex crispus*, FAC), Great Ragweed (FAC), and Annual Blue Grass (*Poa annua*, FACU). In addition, non-dominant vegetation at the data point included White Mulberry (*Morus alba*, UPL), and Chufa (*Cyperus esculentus*, FACW). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-20" had a matrix soil color of 10YR 4/4 with concentrations in the matrix at 5%, and a texture of loam. The soil at the data point was mapped as Nolin silt loam, occasionally flooded and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Wetland 0102 (<0.01 acre)

This wetland was an emergent wetland located in a swale in an agricultural field. No surface water connection with any "waters of the United States" was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.48.

Wetland Data Point

Data Point 0103 (DP0103)

Dominant vegetation in the vicinity of DP0103 included Dark-Green Bulrush (*Scirpus atrovirens*, OBL). In addition, non-dominant vegetation at the data point included Curly Dock (FAC). This met the rapid test for hydrophytic vegetation. The soil from 0-2" had a matrix soil color of 10YR 4/4 with a texture of silty clay loam. The soil from 2-5" had a matrix soil color of 10YR 4/2 with concentrations in the matrix at 5%, and a texture of silty clay loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded, and met the Depleted Matrix (F3) hydric soil criterion. The indicators of hydrology observed included Algal Mat or Crust (B4), Drainage Patterns (B10), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 0104 (DP0104)

Dominant vegetation in the vicinity of DP0104 included soybean (UPL), and Annual Blue Grass (FACU). In addition, non-dominant vegetation at the data point included Curly Dock (FAC). This did not meet any indicators for hydrophytic vegetation. The soil from 0-20" had a matrix soil color of 10YR 4/4 with concentrations in the matrix at 5%, and a texture of silty clay loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded, and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 0105 (DP0105)

Dominant vegetation in the vicinity of DP0105 included White Panicled American-Aster (*Symphyotrichum lanceolatum*, FACW), Curly Dock (FAC), White Mulberry (UPL), Eastern Cottonwood (*Populus deltoides*, FAC), Late Goldenrod (*Solidago gigantea*, FACW), and Yellow Sweet-Clover (*Melilotus officinalis*, FACU). In addition, non-dominant vegetation at the data point included Striped Cream Violet (*Viola striata*, FACW), and Honey-Locust (*Gleditsia triacanthos*, FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegeation indicator. The soil from 0-20" had a matrix soil color of 10YR 5/3 with concentrations in the matrix at 10%, and a texture of silt loam. The soil at the data point was mapped as Nolin silt loam, occasionally flooded and did not meet any hydric soil criteria. The primary indicator of hydrology observed was Drift Deposits (B3). This data point did not qualify as a wetland.

Wetland 0201 (0.09 Acre)

This wetland was an emergent wetland located in a depression in a woodlot. No surface water connection with any “waters of the United States” was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.11.

Wetland Data Point

Data Point 0201 (DP0201)

Dominant vegetation in the vicinity of DP0201 included Sugar-Berry (FACW), Dock-Leaf Smartweed (*Persicaria lapathifolia*, FACW), and White Panicled American-Aster (FACW). In addition, non-dominant vegetation at the data point included Sugar-Berry (FACW) and Stalk-Grain Sedge (*Carex stipata*, OBL). This met the rapid test for hydrophytic vegetation. The soil from 0-6" had a matrix soil color of 10YR 4/2 with concentrations in the matrix at 10%, and a texture of silty clay loam. The soil from 6-16" had a matrix soil color of 10YR 4/2 with concentrations in the matrix at 40%, and a texture of silty clay loam. The soil at the data point was mapped as Blackford silt loam, 0 to 2 percent slopes, occasionally flooded (uBlaA), and met the Depleted Matrix (F3), and Redox Depressions (F8) hydric soil criteria. The indicators of hydrology observed included Drift Deposits (B3), Algal Mat or Crust (B4), Geomorphic Position (D2), and the FAC-Neutral Test (D5). This data point qualified as a wetland.

<u>Upland Data Point</u>

<u>Data Point 0202 (DP0202)</u>

Dominant vegetation in the vicinity of DP0202 included Sugar-Berry (FACW), American Elm (FACW), Black Walnut (FACU), common blue violet (FAC), Virginia Wild Rye (FACW), Coral-Berry (FACU), and Inflated Narrow-Leaf Sedge (*Carex grisea*, FACU). In addition, non-dominant vegetation at the data point included Meadow Garlic (*Allium canadense*, FACU), Virginia Springbeauty (*Claytonia virginica*, FAC), Spotted Touch-Me-Not (*Impatiens capensis*, FACW), Virginia-Creeper (*Parthenocissus quinquefolia*, FACU), and Great Ragweed (FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-16" had a matrix soil color of 10YR 4/2 with a texture of silt loam. The soil at the data point was mapped as Blackford silt loam, 0 to 2 percent slopes, occasionally flooded (uBlaA) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

<u>Upland Data Point</u>

<u>Data Point 1001 (DP1001)</u>

Dominant vegetation in the vicinity of dp1001 included Sugar-Berry (FACW), Chinkapin Oak (*Quercus muehlenbergii*, UPL), Coral-Berry (FACU), and Nodding Fescue (*Festuca subverticillata*, FACU). In addition, non-dominant vegetation at the data point included American Elm (FACW), Osage-Orange (*Maclura pomifera*, UPL), Shag-Bark Hickory (*Carya ovata*, FACU), White Ash (FACU), Sticky-Willy (FACU), and Eastern Woodland Sedge (FAC). This did not meet any indicators for hydrophytic vegetation. The soil from 0-16" had a matrix soil color of 10YR 5/3 with a texture of silt loam. The soil at the data point was mapped as Elk silt loam, 1 to 4 percent slopes, rarely flooded (EkB) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

<u>Upland Data Point</u>

<u>Data Point 1002 (dp1002)</u>

Dominant vegetation in the vicinity of dp1002 included Eastern Red-Cedar (*Juniperus virginiana*, FACU), Johnson Grass (*Sorghum halepense*, FACU), Field Brome (*Bromus arvensis*, FACU), and Tall Goldenrod (FACU). In addition, non-dominant vegetation at the data point included Wingstem (*Verbesina alternifolia*, FAC). This did not meet any indicators for hydrophytic vegetation. The soil from 0-16" had a matrix soil color of 10YR 5/4 with a texture of silt loam. The soil at the data point was mapped as Crider silt loam, 6 to 12 percent slopes, severely eroded (CrC3) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 1003 (dp1003)

Dominant vegetation in the vicinity of dp1003 included Johnson Grass (FACU) and Wingstem (FAC). In addition, non-dominant vegetation at the data point included Poison-Hemlock (*Conium maculatum*, FACW), Field Brome (FACU), and common wheat (*Triticum aestivum*, UPL). This did not meet any indicators for hydrophytic vegetation. The soil from 0-16" had a matrix soil color of 10YR 5/3 with a texture of silt loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded (CrB2) and did not meet any hydric soil criteria. The only indicator of hydrology observed included the secondary indicator of drainage patterns (B10). This data point did not qualify as a wetland.

Upland Data Point

Data Point 1004 (dp1004)

Dominant vegetation in the vicinity of dp1004 included Slippery Elm (*Ulmus rubra*, FAC), Osage-Orange (UPL), White Ash (FACU), Sugar-Berry (FACW), Spreading Chervil (FACW), Coral-Berry (FACU), Jumpseed (*Persicaria virginiana*, FAC), White Snakeroot (*Ageratina altissima*, FACU), Wingstem (FAC), and Woodland Blue Grass (*Poa sylvestris*, FACW). In addition, non-dominant vegetation at the data point included Eastern Red-Cedar (FACU), Sticky-Willy (FACU), and Chinaroot (*Smilax hispida*, FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegeation indicator. The soil from 0-3" had a matrix soil color of 10YR 4/2 with a texture of silt loam. The soil from 3-16" had a matrix soil color of 10YR 5/3 with a texture of Silt Loam. The soil at the data point was mapped as Nolin silt loam, occasionally flooded (No) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 1005 (dp1005)

Dominant vegetation in the vicinity of dp1005 included Field Brome (FACU), Jumpseed (Persicaria virginiana, FAC), Wingstem (FAC), and Coral-Berry (FACU). In addition, non-dominant vegetation at the data point included Eastern Poison Ivy (*Toxicodendron radicans*, FAC), Orchard Grass (*Dactylis glomerata*, FACU), Clustered Black-Snakeroot (*Sanicula odorata*, FACU), and Deer-Tongue Rosette Grass (*Dichanthelium clandestinum*, FAC). This did not meet any indicators for hydrophytic vegetation. The soil from 0-3" had a matrix soil color of 10YR 4/2 with a texture of silt loam. The soil from 3-16" had a matrix soil color of 10YR 5/3 with a texture of silt loam. The soil at the data point was mapped as Crider silt loam, 12 to 20 percent slopes, eroded (CrD2) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 1101 (dp1101)

Dominant vegetation in the vicinity of dp1101 included Black Walnut (FACU), Common Pawpaw (*Asimina triloba*, FAC), Johnson Grass (FACU), Wingstem (FAC), and Asiatic Dayflower (*Commelina communis*, FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-2" had a matrix soil color of 10YR 4/2 with a texture of clay loam. The soil from 2-16" had a matrix soil color of 10YR 4/6 with a texture of clay loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded (CrB2) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 1102 (dp1102)

Dominant vegetation in the vicinity of dp1102 included White Ash (FACU), Sugar-Berry (FACW), Honey-Locust (FAC), Coral-Berry (FACU), and Wingstem (FAC). In addition, non-dominant vegetation at the data point included Eastern Poison Ivy (FAC), Nodding Wild Rye (*Elymus canadensis*, FACU), Giant Ironweed (*Vernonia gigantea*, FAC), Muscadine (*Vitis rotundifolia*, FAC), Showy Tick-Trefoil (*Desmodium canadense*, FAC), and Ash-Leaf Maple (FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-5" had a matrix soil color of 10YR 4/2 with a texture of silty clay loam. The soil from 5-16" had a mixed matrix of 10YR 4/4 at 60% and 10YR 4/6 at 40% with a soil texture of silty clay loam. The soil at the data point was mapped as Crider silt loam, 2 to 6 percent slopes, eroded (CrB2) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Upland Data Point

Data Point 1103 (dp1103)

Dominant vegetation in the vicinity of dp1103 included Harvestlice (*Agrimonia parviflora*, FACW) and Tall Goldenrod (FACU). In addition, non-dominant vegetation at the data point included Coral-Berry (FACU), Rambler Rose (FACU), Honey-Locust (FAC), Japanese Stilt Grass (*Microstegium vimineum*, FAC), Field Brome (FACU), White Avens (*Geum canadense*, FACU), Short's Sedge (*Carex shortiana*, FAC), Common Milkweed (*Asclepias syriaca*, FACU), and Common Timothy (*Phleum pratense*, FACU). This did not meet any indicators for hydrophytic vegetation. The soil from 0-5" had a matrix soil color of 10YR 4/2 with a texture of silty clay loam. The soil from 5-16" had a mixed matrix of 10YR 4/4 at 60% and 10YR 4/6 at 40% with a soil texture of silty clay loam. The soil at the data point was mapped as Crider silt loam, 12 to 20 percent slopes, eroded (CrD2) and did not meet any hydric soil criteria. The only indicator of hydrology observed included the secondary indicator of the FAC-Neutral Test (D5). This data point did not qualify as a wetland.

Wetland 1201 (w1201) (0.03 Acre)

This wetland was a forested wetland located in a depression. No surface water connection with any “waters of the United States” was observed. Unless a direct groundwater connection to a jurisdictional feature is assumed by the USACE, it is likely that this wetland is not regulated. See Figure 5.5.

Upland Data Point

Data Point 1201 (dp1201)

Dominant vegetation in the vicinity of dp1201 included Sugar Maple (FACU), American Elm (FACW), Coral-Berry (FACU), White Ash (FACU), Virginia Wild Rye (FACW), May-Apple (FACU), and Sticky-Willy (FACU). In addition, non-dominant vegetation at the data point included Black Walnut (FACU), Davis' Sedge (*Carex davisii*, FAC), Virginia-Creeper (FACU), Inflated Narrow-Leaf Sedge (FACU), and Christmas Fern (*Polystichum acrostichoides*, FACU). This did not meet any indicators for hydrophytic vegetation. The soil from 0-4" had a matrix soil color of 10YR 3/2 with a texture of clay loam. The soil from 4-16" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 15%, and a texture of clay loam. The soil at the data point was mapped as Urban land (Ur), and met the depleted matrix (F3) hydric soil criterion. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Wetland Data Point

Data Point 1202 (dp1202)

Dominant vegetation in the vicinity of dp1202 included American Elm (FACW), American Sycamore (*Platanus occidentalis*, FACW), Rambler Rose (FACU), Green Ash (FACW), Pointed Broom Sedge (*Carex scoparia*, FACW), and Fowl Manna Grass (*Glyceria striata*, OBL). In addition, non-dominant vegetation at the data point included Green Ash (FACW), Ash-Leaf Maple (FAC), Northern White Oak (*Quercus alba*, FACU), Eastern Cottonwood (FAC), Black Cherry (*Prunus serotina*, No), and Virginia Wild Rye (FACW). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-12" had a matrix soil color of 10YR 4/2 with concentrations in the matrix at 20%, and a texture of clay loam. The soil at the data point was mapped as Urban land (Ur), and met the depleted matrix (F3), and redox depressions (F8) hydric soil criteria. The indicators of hydrology observed included saturation (A3), crayfish burrows (C8), geomorphic position (D2), and the FAC-neutral test (D5). This data point qualified as a wetland.

Wetland 1202 (w1202) (0.49 Acre)

This wetland was a forested wetland located in a depression. A surface water connection with an unnamed tributary to Donaldson Creek, which flows into the Cumberland River, a Traditional Navigable Water, was observed. Due to this connection, this wetland should be considered a “waters of the United States”. See Figure 5.5 and 5.6.

Wetland Data Point

Data Point 1203 (dp1203)

Dominant vegetation in the vicinity of dp1203 included Eastern Cottonwood (FAC), Ash-Leaf Maple (FAC), Northern Spicebush (*Lindera benzoin*, FAC), Spotted Touch-Me-Not (FACW), White Panicled American-Aster (FACW), and Eastern Poison Ivy (FAC). In addition, non-dominant vegetation at the data point included American Elm (FACW), Fowl Manna Grass (OBL), Yellow-Fruit Sedge (*Carex annectens*, FACW), Virginia Wild Rye (FACW), and Short's Sedge (FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-12" had a matrix soil color of 10YR 4/1 with concentrations in the matrix at 30%, and a texture of silty clay loam. The soil at the data point was mapped as Urban land (Ur), and met the depleted matrix (F3) and redox depressions (F8) hydric soil criteria. The indicators of hydrology observed included sediment deposits (B2), water-stained leaves (B9), oxidized rhizospheres on living roots (C3), crayfish furrows (C8), geomorphic position (D2), and the FAC-neutral test (D5). This data point qualified as a wetland.

Upland Data Point

Data Point 1204 (dp1204)

Dominant vegetation in the vicinity of dp1204 included Sugar Maple (FACU), American Elm (FACW), Northern Spicebush (FAC), Ohio Buckeye (*Aesculus glabra*, FACU), and Woodland Blue Grass (FACW). In addition, non-dominant vegetation at the data point included Black Cherry (FACU), Sugar-Berry (FACW), Common Persimmon (*Diospyros virginiana*, FAC), Jumpseed (FAC), Canadian Black-Snakeroot (*Sanicula canadensis*, UPL), Hairy Sweet-Cicely (*Osmorhiza claytonii*, FACU), and common blue violet (FAC). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-3" had a matrix soil color of 10YR 3/2 with a texture of silt loam. The soil from 3-16" had a matrix soil color of 7.5YR 4/6 with a texture of silt loam. The soil at the data point was mapped as Blackford silt loam, 0 to 2 percent slopes, occasionally flooded (uBlaA) and did not meet any hydric soil criteria. No indicators of hydrology were observed at the data point. This data point did not qualify as a wetland.

Wetland 1203 (w1203) (0.18 Acre)

This wetland was an emergent wetland located in a depression. This wetland has a surface water connection with Stream S1203 which flows into Black Creek. Black Creek flows into Donaldson Creek, a tributary to the Cumberland River, a Traditional Navigable Water. Due to this connection, this wetland should be considered a “waters of the United States”. See Figure 5.2 and 5.6.

Wetland Data Point

Data Point 1205 (dp1205)

Dominant vegetation in the vicinity of dp1205 included Large Barnyard Grass (*Echinochloa crus-galli*, FAC). In addition, non-dominant vegetation at the data point included Curly Dock (FAC), and Chufa (FACW). The dominance test is greater than 50%, which qualifies as a hydrophytic vegetation indicator. The soil from 0-12" had a matrix soil color of 10YR 5/2 with concentrations in the matrix at 15%, and a texture of silt loam. The soil from 12-18" had a matrix soil color of 10YR 5/4 with concentrations in the matrix at 15%, and a texture of silt loam. The soil at the data point was mapped as Blackford silt loam, 0 to 2 percent slopes, occasionally flooded (uBlaA), and met the depleted matrix (F3) and redox depressions (F8) hydric soil criteria. The indicators of hydrology observed included drift deposits (B3), surface soil cracks (B6), crayfish burrows (C8), and geomorphic position (D2). This data point qualified as a wetland.

Wetland 1204 (w1204) (0.22 Acre)

This wetland was an emergent wetland located in a depression. This wetland has a surface water connection with Stream S1203 which flows into Black Creek. Black Creek flows into Donaldson Creek, a tributary to the Cumberland River, a Traditional Navigable Water. Due to this connection, this wetland should be considered a “waters of the United States”. See Figure 5.1 and 5.2.

Wetland Data Point

Data Point 1206 (dp1206)

Dominant vegetation in the vicinity of dp1206 included American Water-Plantain (*Alisma subcordatum*, OBL), Floating Primrose-Willow (*Ludwigia peploides*, OBL), Frank's Sedge (OBL), and Rice Cut Grass (*Leersia oryzoides*, OBL). In addition, non-dominant vegetation at the data point included Lesser Poverty Rush (*Juncus tenuis*, FAC) and Lamp Rush (*Juncus effusus*, FACW). This met the rapid test for hydrophytic vegetation. The soil from 0-12" had a matrix soil color of 10YR 6/1 with concentrations in the matrix at 30%, and a texture of silt loam. The soil at the data point was mapped as Belknap silt loam, 0 to 2 percent slopes, occasionally flooded (uBelA), and met the depleted matrix (F3) and redox depressions (F8) hydric soil criteria. The secondary indicators of hydrology observed included surface soil cracks (B6), crayfish burrows (C8), geomorphic position (D2), and the FAC-neutral test (D5). This data point qualified as a wetland.

4.2.2 Stream Descriptions

Stream 0001 (s0001) (390 Linear Feet)

Stream 0001 was an ephemeral stream that flowed east through the Study Area. The dominant substrates were silt and clay or hardpan. OHWM width was two feet and depth was 0.2 foot. Stream 001 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.24.

Stream 0002 (s0002) (1250 Linear Feet)

Stream 0002 was an intermittent stream that flowed south through the Study Area. The dominant substrates were silt and gravel. OHWM width was three feet and depth was 0.3 foot. Stream 002 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figures 5.7, 5.8, and 5.17.

Stream 0003 (s0003) (4035 Linear Feet)

Stream 0003 was an intermittent stream that flowed south through the Study Area. The dominant substrates were cobble and gravel. OHWM width was three feet and depth was 0.3 foot. Stream 003 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figures 5.8, 5.9, 5.17, and 5.18.

Stream 0004 (s0004) (844 Linear Feet)

Stream 0004 was an ephemeral stream that flowed south through the Study Area. The dominant substrates were boulder and cobble. OHWM width was two feet and depth was 0.2 foot. Stream 004 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.9.

Stream 0005 (s0005) (799 Linear Feet)

Stream 0005 was an intermittent stream that flowed southwest through the Study Area. The dominant substrates were boulder and cobble. OHWM width was three feet and depth was 0.2 foot. Stream 005 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.9.

Stream 0006 (s0006) (2769 Linear Feet)

Stream 0006 was an intermittent stream that flowed south through the Study Area. The dominant substrates were gravel and silt. OHWM width was four feet and depth was 0.4 foot. Stream 006 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figures 5.17, 5.27, and 5.37.

Stream 0007 (s0007) (311 Linear Feet)

Stream 0007 was an ephemeral stream that flowed west through the Study Area. The dominant substrates were boulder and cobble. OHWM width was two feet and depth was 0.2 foot. Stream

007 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.9.

Stream 0008 (s0008) (1204 Linear Feet)

Stream 0008 was an ephemeral stream that flowed south through the Study Area. The dominant substrates were silt and clay. OHWM width was four feet and depth was 0.5 foot. Stream 008 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". This stream had a mapped 100-year floodplain as a tributary to Skinframe Creek. See Figures 5.32 and 5.42.

Stream 0009 (s0009) (162 Linear Feet)

Stream 0009 was an ephemeral stream that flowed west through the Study Area. The dominant substrates were silt and boulder. OHWM width was three feet and depth was 0.5 foot. Stream 009 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.48.

Stream 0101 (s0101) (90 Linear Feet)

Stream 0101 was an ephemeral stream that flowed southwest through the Study Area. The dominant substrates were clay or hardpan and leaf pack or woody debris. OHWM width was one foot and depth was 0.1 foot. Stream 101 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.51.

Stream 0102 (s0102) (1043 Linear Feet)

Stream 0102 was an intermittent stream that flowed south through the Study Area. The dominant substrates were clay or hardpan and silt. OHWM width was two feet and depth was 0.4 foot. Stream 102 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.49.

Stream 0201 (s0201) (268 Linear Feet)

Stream 0201 was an ephemeral stream that flowed southeast through the Study Area. The dominant substrate was silt. OHWM width was six feet and depth was 0.5 foot. Stream 201 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.10.

Stream 0202 (s0202) (1752 Linear Feet)

Stream 0202 was an intermittent stream that flowed west through the Study Area. The dominant substrates were silt and leaf pack or woody debris. OHWM width was three feet and depth was 0.3 foot. Stream 202 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.11 and 5.12.

Stream 0203 (s0203) (181 Linear Feet)

Stream 0203 was an ephemeral stream that flowed west through the Study Area. The dominant substrates were silt and leaf pack or woody debris. OHWM width was 1.5 feet and depth was 0.1 foot. Stream 203 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.11.

Stream 0204 (s0204) (197 Linear Feet)

Stream 0204 was an ephemeral stream that flowed southwest through the Study Area. The dominant substrates were silt and boulder slabs. OHWM width was five feet and depth was four feet. Stream 204 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.11.

Stream 0205 (s0205) (124 Linear Feet)

Stream 0205 was an ephemeral stream that flowed southeast through the Study Area. The dominant substrates were silt and gravel. OHWM width was four feet and depth was 0.1 foot. Stream 205 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.12.

Stream 0206 (s0206) (672 Linear Feet)

Stream 0206 was an ephemeral stream that flowed west through the Study Area. The dominant substrates were boulder slabs and cobble. OHWM width was four feet and depth was 0.1 foot. Stream 206 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figures 5.13 and 5.22 and 5.23.

Stream 0207 (s0207) (122 Linear Feet)

Stream 0207 was an ephemeral stream that flowed southeast through the Study Area. The dominant substrates were clay or hardpan and cobble. OHWM width was 1.5 feet and depth was 0.2 foot. Stream 207 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.33.

Stream 0208 (s0208) (280 Linear Feet)

Stream 0208 was an ephemeral stream that flowed east through the Study Area. The dominant substrates were clay or hardpan and leaf pack or woody debris. OHWM width was one foot and depth was 0.2 foot. Stream 208 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". This stream had a mapped 100-year floodplain as a tributary to Skinframe Creek. See Figure 5.19.

Stream 0209 (s0209) (184 Linear Feet)

Stream 0209 was an ephemeral stream that flowed south through the Study Area. The dominant substrates were silt and boulder. OHWM width was three feet and depth was 0.1 foot. Stream

209 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.30.

Stream 0210 (s0210) (447 Linear Feet)

Stream 0210 was an intermittent stream that flowed north through the Study Area. The dominant substrates were boulder and cobble. OHWM width was eight feet and depth was 0.4 foot. Stream 210 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.31.

Stream 1001 (s1001) (3,305 Linear Feet)

Stream 1001 was an intermittent stream that flowed northeast through the Study Area. The dominant substrates were silt and sand. OHWM width was two feet and depth was 0.2 foot. Stream 1001 flows into Donaldson Creek, a tributary to the Ohio River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.4, 5.5, and 5.12.

Stream 1002 (s1002) (1,140 Linear Feet)

Stream 1002 was an intermittent stream that flowed southwest through the Study Area. The dominant substrates were silt and clay. OHWM width was two feet and depth was 0.2 foot. Stream 1002 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.50.

Stream 1003 (s1003) (165 Linear Feet)

Stream 1003 was an ephemeral stream that flowed south through the Study Area. The dominant substrates were silt and clay. OHWM width was one feet and depth was 0.1 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.49.

Stream 1101 (s1101) (286 Linear Feet)

Stream 1101 was an ephemeral stream that flowed west through the Study Area. The dominant substrates were clay and silt. OHWM width was one feet and depth was 0.3 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.45.

Stream 1102 (s1102) (1,742 Linear Feet)

Stream 1102 was an intermittent stream that flowed west through the Study Area. The dominant substrates were clay and silt. OHWM width was three feet and depth was 0.3 foot. Stream 1102 flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.49 and 5.50.

Stream 1103 (s1103) (172 Linear Feet)

Stream 1103 was an ephemeral stream that flowed southwest through the Study Area. The dominant substrate was clay. OHWM width was one feet and depth was 0.1 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.50.

Stream 1104 (s1104) (180 Linear Feet)

Stream 1104 was an ephemeral stream that flowed north through the Study Area. The dominant substrate was clay. OHWM width was two feet and depth was 0.2 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.50.

Stream 1105 (s1105) (112 Linear Feet)

Stream 1105 was an ephemeral stream that flowed south through the Study Area. . The dominant substrate was clay. OHWM width was one and a half feet and depth was 0.2 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.50.

Stream 1201 (s1201) (157 Linear Feet)

Stream 1201 was an ephemeral stream that flowed southeast through the Study Area. The dominant substrates were clay and silt. OHWM width was one feet and depth was 0.5 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.5 and 5.6.

Stream 1202 (s1202) (588Linear Feet)

Stream 1202 was an intermittent stream that flowed northeast through the Study Area. The dominant substrates were clay and silt. OHWM width was five feet and depth was 1.2 foot. Stream 1202 flows into Donaldson Creek, a tributary to the Ohio River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.5 and 5.6.

Stream 1203 (Donaldson Creek) (s1203) (2,994 Linear Feet)

Stream 1203 was a perennial stream that flowed north through the Study Area. The dominant substrates were silt and gravel. OHWM width was seven feet and depth was 1.5 foot. Stream 1203 flows into the Tradewater River, a tributary to the Ohio River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.1, 5.2 and 5.6.

Stream 1204 (s1204) (480 Linear Feet)

Stream 1204 was an ephemeral stream that flowed northeast through the Study Area. The dominant substrates were silt and clay. OHWM width was two feet and depth was 0.5 foot. This stream flows into the Cumberland River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a “waters of the United States”. See Figure 5.5 and 5.6.

Stream 1205 (s1205) (161 Linear Feet)

Stream 1205 was an intermittent stream that flowed northwest through the Study Area. The dominant substrates were clay and silt. OHWM width was four feet and depth was 1 foot. Stream 1205 flows into Donaldson Creek, a tributary to the Ohio River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". See Figure 5.5.

Stream 1206 (Black Creek) (s1206) (115 Linear Feet)

Stream 1206 was a perennial stream that flowed west through the Study Area. The dominant substrates was silt and gravel. OHWM width was seven feet and depth was 1.2 foot. Stream 1206 flows into Donaldson Creek, a tributary to the Ohio River, a Traditional Navigable Water. Due to this connection, this stream will likely be considered a "waters of the United States". Due to this connection, this stream will likely be considered a "waters of the United States". See Figures 5.1 and 5.2.

4.2.1 Pond Descriptions

Pond 0001 (p0001) (0.14 Acres)

Pond 0001 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.29.

Pond 0101 (p0101) (0.18 Acres)

Pond 0101 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.55.

Pond 0102 (p0102) (0.27 Acres)

Pond 0102 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.43 and 5.44.

Pond 0201 (p0201) (0.29 Acres)

Pond 0201 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.11.

Pond 0202 (p0202) (0.28 Acres)

Pond 0202 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.30.

Pond 0203 (p0203) (0.71 Acres)

Pond 0203 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.31.

Pond 0204 (p0204) (0.59 Acres)

Pond 0204 was an open water feature within the project Study Area. No surface water connection with a "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.21 and 5.34.

Pond 0205 (p0205) (0.06 Acres)

Pond 0205was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.21.

Pond 0206 (p0206) (0.10 Acres)

Pond 0206 was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.34.

Pond 0207 (p0207) (1.39 Acres)

Pond 0207 was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.40 and 5.46.

Pond 1001 (p1001) (0.10 Acres)

Pond 1001 was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.13.

Pond 1002 (p1002) (0.20 Acres)

Pond 1002 was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.13.

Pond 1101 (p1101) (0.53 Acres)

Pond 1101 was an open water feature within the project Study Area. No surface water connection with a “waters of the United States” was observed. This feature should not be considered a “waters of the United States”. See Figure 5.50.

Pond 1201 (p1201) (0.24 Acres)

Pond 1201 was an open water feature within the project Study Area. A surface water connection with an unnamed tributary to Donaldson Creek, which flows into the Cumberland River, a Traditional Navigable Water, was observed. Due to this connection, this pond should be considered a “waters of the United States”. See Figure 5.5.

Pond 1202 (p1202) (0.05 Acres)

Pond 1202 was an open water feature within the project Study Area. No surface water connection with a perennial or intermittent "waters of the United States" was observed. This feature should not be considered a "waters of the United States". See Figure 5.5 and 5.6.

5 Jurisdictional Analysis

5.1 U.S. Army Corps of Engineers

The USACE has authority over the discharge of fill and/or dredged material into "waters of the U.S." This includes authority over any filling, mechanical land clearing, or construction activities that occur within the boundaries of any "waters of the U.S." A permit must be obtained from the USACE under Section 404 of the Clean Water Act (CWA) before any of these activities occur. Permits in the Commonwealth can be divided into two general categories: Individual Permits and Nationwide Permits. Compensatory mitigation may be required for projects that impact greater than 0.10 acre of wetlands or result in a loss of streams or open waters.

Individual Permits are required for projects that do not fall into one of the specific Nationwide Permits (NWP) categories or are deemed to have significant environmental impacts. These permits are much more difficult to obtain and receive a much higher level of regulatory agency and public scrutiny and may require several months to more than a year for processing.

Nationwide Permits have been developed for projects which meet specific criteria and are deemed to have minimal impact on the aquatic environment. There are currently 54 NWP for qualifying activities with 32 NWP General Conditions and 7 KDOW Conditions that must be satisfied in order to receive NWP authorization from the Corps of Engineers. Nine of the 54 NWP are denied general use by the KDOW and always require individual 401 Water Quality Certification.

Section 401 Water Quality Certification (WQC) must be obtained from Kentucky Division of Water before the USACE will complete their permit review. Some NWP have been categorically granted WQC with the USACE NWP issuance, as long as specific project conditions are met.

5.2 Kentucky Division of Water

5.2.1 Section 401 Permits

Kentucky Division of Water is responsible for issuing CWA Section 401 WQCs in conjunction with the USACE Section 404 permits. Individual WQC is required for most projects that occur within surface waters with a special use designation (cold-water habitat, etc.). In addition, most project with proposed impacts greater than 300 linear feet of stream or ½ acre of wetlands require individual WQC. Individual WQC may be required for any project which the DOW determines to have more than minimal impacts to the aquatic environment.

Water quality certification may be granted, without notification to the KDOW, if the project falls under NWP limitations. In order to qualify for this standing certification, all prior-authorized General and Regional Conditions as published by the KDOW must be satisfied. Certain NWPs have specific conditions concerning project impact thresholds and notification requirements.

The permitting process of the KDOW is conditional upon a permit requirement under the CWA sections 401 and 404. For this reason, permits are only processed where the USACE has assumed jurisdiction over a resource. There is currently no mechanism to permit isolated wetlands through the KDOW.

5.2.2 Floodplain Permitting

Kentucky Division of Water is responsible for issuing floodplain development permits in the Commonwealth. Activities covered include dams, bridges, culverts, residential and commercial buildings, placement of fill, stream alterations or relocations, small impoundments and water and wastewater treatment plants. Projects are only authorized which will have minimal or no impact on the base flood elevations. KDOW has a combined permit application process that covers the Stream Construction and Floodplain permits.

Authorization for floodplain development is only granted with the approval of the local floodplain coordinator, who is typically assigned for each county or community participating in the national flood insurance program. Local approval may also involve additional development permits or conditions.

6 Summary and Conclusion

6.1 Summary

Cardno inspected the Golden Solar Study Area on April 8 - 10, 2020 and May 27, 2021. Delineated features are shown on the Figure 5 set and in Tables 6-1, 6-2, and 6-3.

6.1.1 Subterranean Waters

Subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface may be considered “waters of the Commonwealth”. Two features potentially meeting this definition were identified within the study area (Figure 5.24 and the Photo Page Appendix).

6.1.2 Special-Use Waters

No special-use waters were identified within the Study Area.

6.1.3 Wetlands and Waterways

Ten wetlands, thirty-five streams, and fifteen ponds were identified.

Table 6-1 Wetlands Identified within the Golden Solar Study Area

Feature Name	NWI Identified	Feature Class	Regulatory Status*	ORAM Score	Acreage (AC)
w0001	No	PEM	non-WOTUS	20.0	0.12
w0002	Yes	PEM	non-WOTUS	44.0	0.35
w0003	No	PEM	non-WOTUS	34.0	0.32
w0101	Yes	PEM	non-WOTUS	45.0	0.01
w0102	No	PEM	non-WOTUS	23.0	<0.01
w0201	Yes	PEM	non-WOTUS	47.0	0.09
w1201	No	PFO	non-WOTUS	33.0	0.03
w1202	Yes	PFO	WOTUS	51.0	0.49
w1203	No	PEM	WOTUS	19.0	0.18
w1204	No	PEM	WOTUS	19.0	0.22
TOTALS		**PEM**	**non-WOTUS**	**0.89**	
			WOTUS	**0.40**	
			TOTAL	**1.29**	
		PFO	**non-WOTUS**	**0.03**	
			WOTUS	**0.49**	
			TOTAL	**0.52**	
		non-WOTUS		**0.92**	
		WOTUS		**0.89**	
		GRAND TOTAL		**1.81**	

*Regulatory Status is based on our professional judgment and experience; however, the USACE makes the final determination.

Table 6-2 Streams Identified Within the Golden Solar Study Area

Feature Name	USGS/NWI Identified	Feature Class	Regulatory Status*	Dimensions (FT)		QHEI/HHEI Score	Linear Feet (LF)	Acreage (AC)
				Width	Depth			
s0001	No	EPH	WOTUS	2	0.2	49	390	0.02
s0002	No	INT	WOTUS	3	0.3	124	1,250	0.09
s0003	No	INT	WOTUS	3	0.3	133	4,035	0.28
s0004	No	EPH	WOTUS	2	0.2	146	844	0.04
s0005	No	INT	WOTUS	3	0.2	146	799	0.06
s0006	No	INT	WOTUS	4	0.4	115	2,769	0.25
s0007	No	EPH	WOTUS	2	0.2	138	311	0.01
s0008	Yes	EPH	WOTUS	4	.0.5	28	1,204	0.11
s0009	Yes	EPH	WOTUS	3	0.5	25	162	0.01
s0101	No	EPH	WOTUS	1	0.1	83	90	0.00
s0102	Yes	INT	WOTUS	2	0.4	79	1,043	0.05
s0201	Yes	EPH	WOTUS	6	0.5	69	268	0.04
s0202	Yes	INT	WOTUS	3	0.3	87	1,752	0.12
s0203	No	EPH	WOTUS	2	0.1	84	181	0.01
s0204	Yes	EPH	WOTUS	5	0.4	69	197	0.02
s0205	No	EPH	WOTUS	4	0.1	87	124	0.01
s0206	Yes	EPH	WOTUS	4	0.1	73	682	0.06
s0207	No	EPH	WOTUS	2	0.2	94	122	0.00
s0208	Yes	EPH	WOTUS	1	0.2	71	280	0.01
s0209	No	EPH	WOTUS	3	0.1	87	184	0.01
s0210	Yes	INT	WOTUS	8	0.4	95	447	0.08
s1001	Yes	INT	WOTUS	2	0.2	55	3,305	0.15
s1002	Yes	INT	WOTUS	2	0.2	77	1,140	0.05
s1003	No	EPH	WOTUS	1	0.1	56	165	0.00
s1101	No	EPH	WOTUS	1	0.3	51	286	0.01
s1102	Yes	INT	WOTUS	3	0.3	62	1,742	0.12
s1103	Yes	EPH	WOTUS	1	0.1	51	172	0.00
s1104	No	EPH	WOTUS	2	0.2	56	180	0.01
s1105	No	EPH	WOTUS	2	0.2	69	112	0.01
s1201	No	EPH	WOTUS	1	0.5	71	157	0.00
s1202	Yes	INT	WOTUS	5	1.2	82	588	0.07
s1203	Yes	PER	WOTUS	7	1.5	101	2,994	0.48
s1204	No	EPH	WOTUS	2	0.5	26	480	0.02
s1205	No	INT	WOTUS	4	1.0	62	161	0.01

Feature Name	USGS/NWI Identified	Feature Class	Regulatory Status*	Dimensions (FT)		QHEI/HHEI Score	Linear Feet (LF)	Acreage (AC)
				Width	Depth			
s1206	Yes	PER	WOTUS	7	1.5	101	788	0.13
TOTALS		EPH					6,581	0.39
		INT					19,031	1.34
		PER					3,782	0.61
		GRAND TOTAL					29,394	2.33

*Regulatory Status is based on our professional judgment and experience; however, the USACE makes the final determination.

Table 6-3 Ponds Identified Within the Golden Solar Study Area

Feature Name	NWI Identified	Feature Class	Regulatory Status*	Acreage (AC)
p0001	Yes	PUB	non-WOTUS	0.14
p0101	No	PUB	non-WOTUS	0.18
p0102	Yes	PUB	non-WOTUS	0.27
p0201	Yes	PUB	non-WOTUS	0.29
p0202	No	PUB	non-WOTUS	0.28
p0203	Yes	PUB	non-WOTUS	0.71
p0204	No	PUB	non-WOTUS	0.59
p0205	No	PUB	non-WOTUS	0.06
p0206	Yes	PUB	non-WOTUS	0.10
p0207	Yes	PUB	non-WOTUS	1.39
p1001	Yes	PUB	non-WOTUS	0.10
p1002	Yes	PUB	non-WOTUS	0.20
p1101	Yes	PUB	non-WOTUS	0.53
p1201	Yes	PUB	WOTUS	0.24
p1202	No	PUB	non-WOTUS	0.05
TOTAL			**non-WOTUS**	**4.89**
			WOTUS	**0.24**
			GRAND TOTAL	**5.13**

*Regulatory Status is based on our professional judgment and experience; however, the USACE makes the final determination.

6.1.4 Floodways and Floodplains

The FEMA FIRMette map of the area (Figure 3) identified a 100-year floodplain along Skin Frame Creek, Black Creek, Donaldson Creek, an unnamed tributary to Skin Frame Creek, and an unnamed tributary to Donaldson Creek.

6.2 Conclusion

Ten wetlands, thirty-five streams, and fifteen ponds were identified.

While this report represents our best professional judgment based on our knowledge and experience, it is important to note that the Louisville District of the U.S. Army Corps of Engineers has final discretionary authority over all jurisdictional determinations of ‘waters of the U.S.’ including wetlands under Section 404 of the CWA in this region. It is therefore, recommended that a copy of this report be furnished to the Louisville District of the U.S. Army Corps of Engineers to confirm the results of our findings.

7 References

Environmental Laboratory. 1987. *U.S. Army Corps of Engineers' Wetland Delineation Manua*l, Technical Report Y-87-1, U.S. Waterways Experiment Station, Vicksburg, MS.

Environmental Laboratory. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*, ERDC/EL TR-10-16, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Gleason, H.A. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. 2nd Edition. The New York Botanical Garden. Bronx, NY.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published April 28, 2016. ISSN 2153 733X

Lichvar, R.W., and John T. Kartesz. 2009. *North American Digital Flora: National Wetland Plant List, version 2.4.0* (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.

Lichvar, R., Melvin, N.C., Butterwick, M.L. and Kirchner, W.N. 2012. *National Wetland Plant List Indicator Rating Definitions*. ERDC/CRREL TN-12-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. http://www.fws.gov/wetlands/documents/National-Wetland-Plant-List-Indicator-Rating-Definitions.pdf

Reed, P. B., Jr. 1988. National List of Plant Species that Occur in Wetlands: 1988. Washington, DC: U.S. Fish and Wildlife Service.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed [10/15/2021].

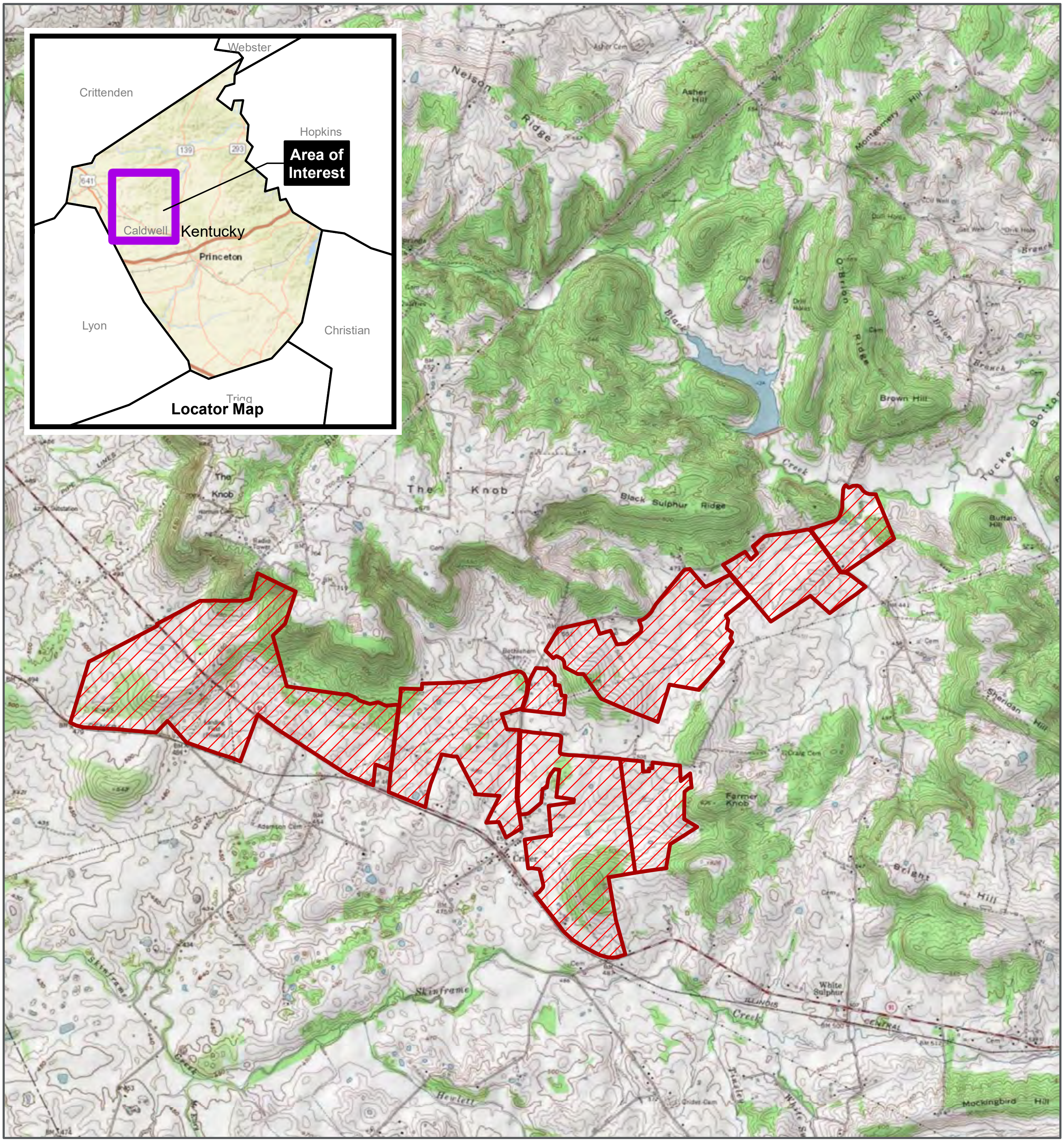
StreamStats, United States Geological Survey. Available online at https://streamstats.usgs.gov.

Golden Solar, Caldwell County, Kentucky

APPENDIX

A

FIGURES



0 2,000 4,000 Feet

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Project Location

N W E S

7.5' Quadrangles: Fredonia Quad Crider Quad Project No. E320201000

Figure 1: Project Location
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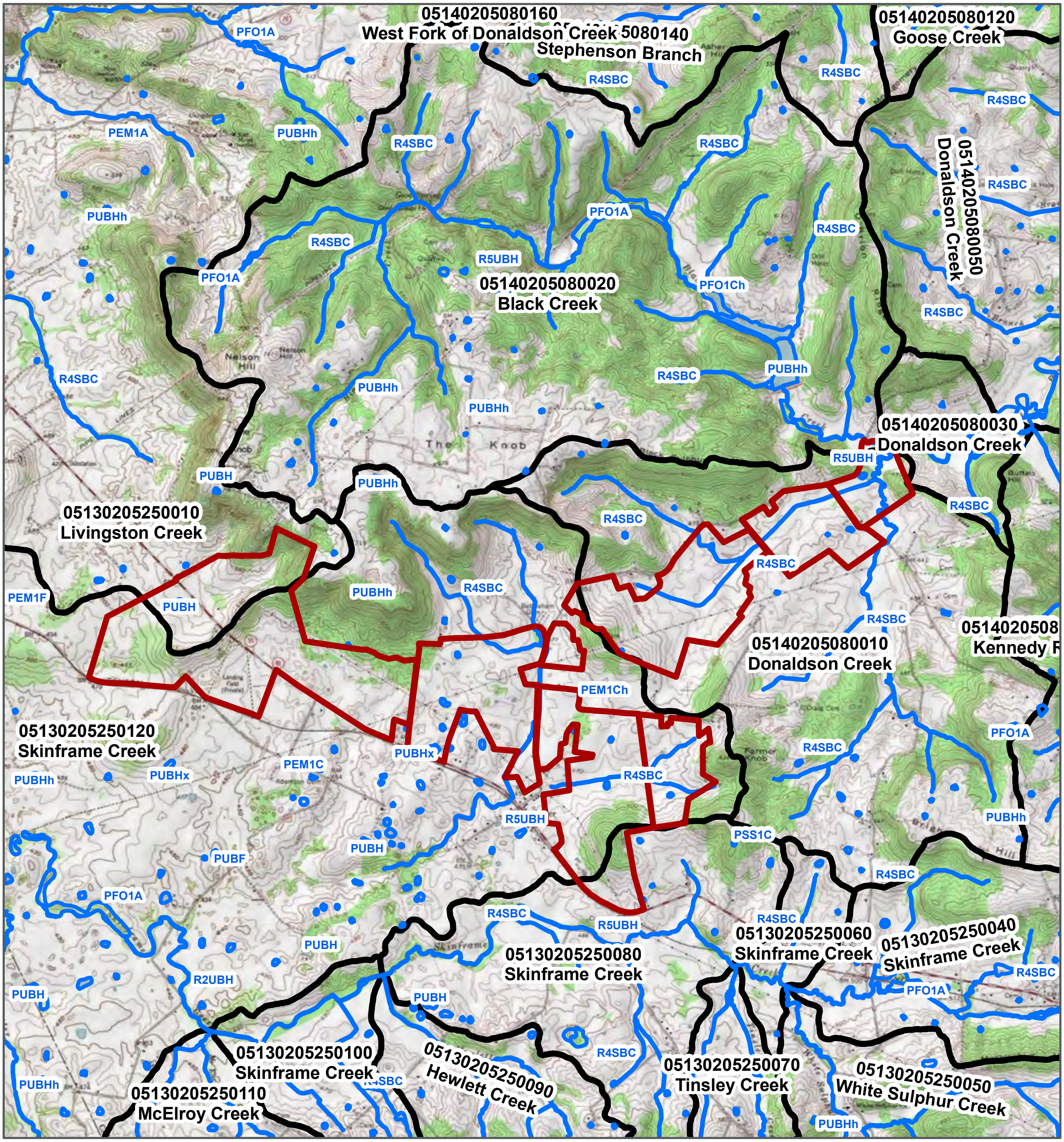

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NWI Wetland

14-Digit HUC Watershed

Study Area

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7.5' Quadrangles:
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Crider Quad
Project No.
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Figure 2: NWI & Watershed
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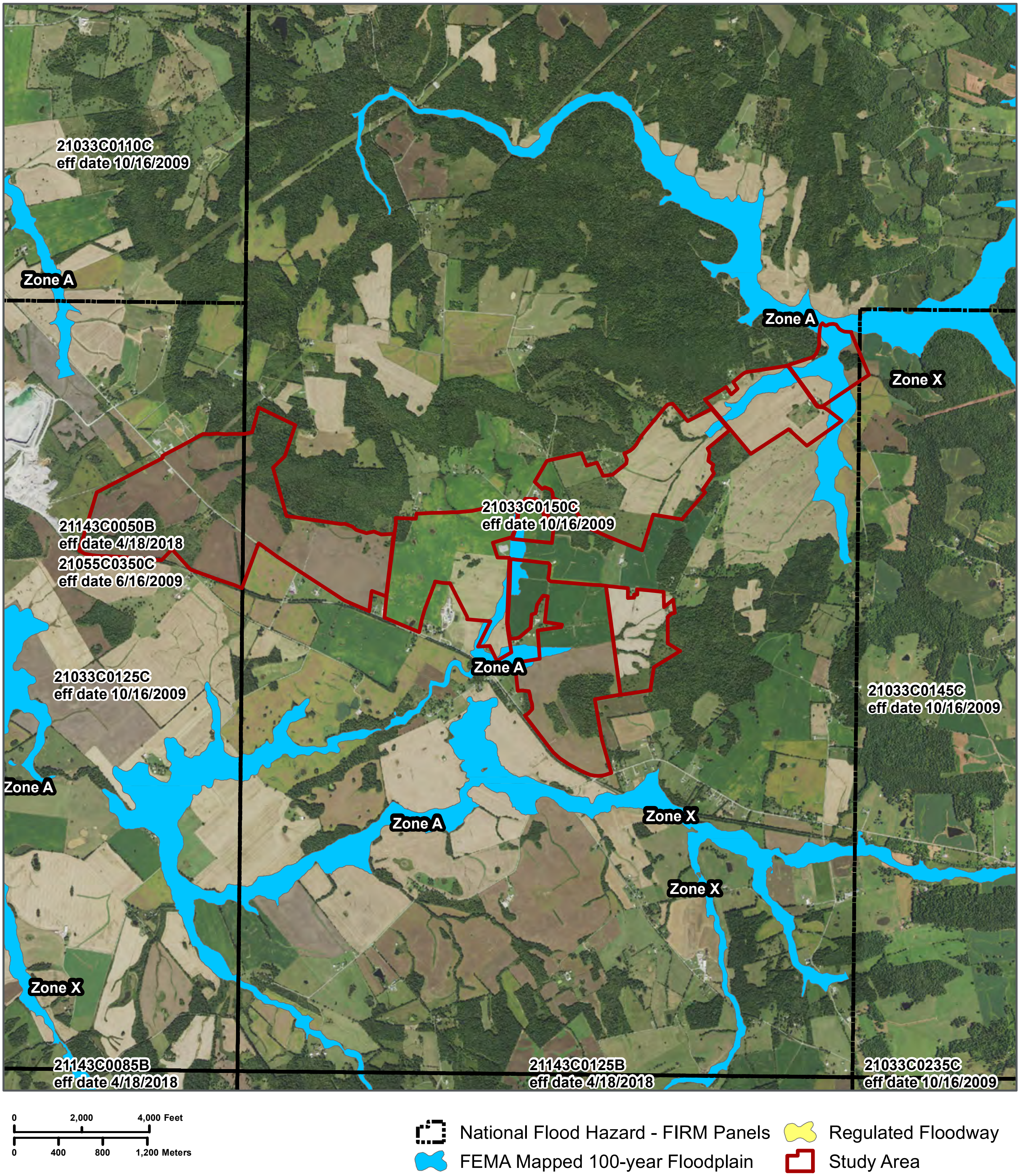

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Figure 3: Construction in Floodway Constraints (2018 Aerial)

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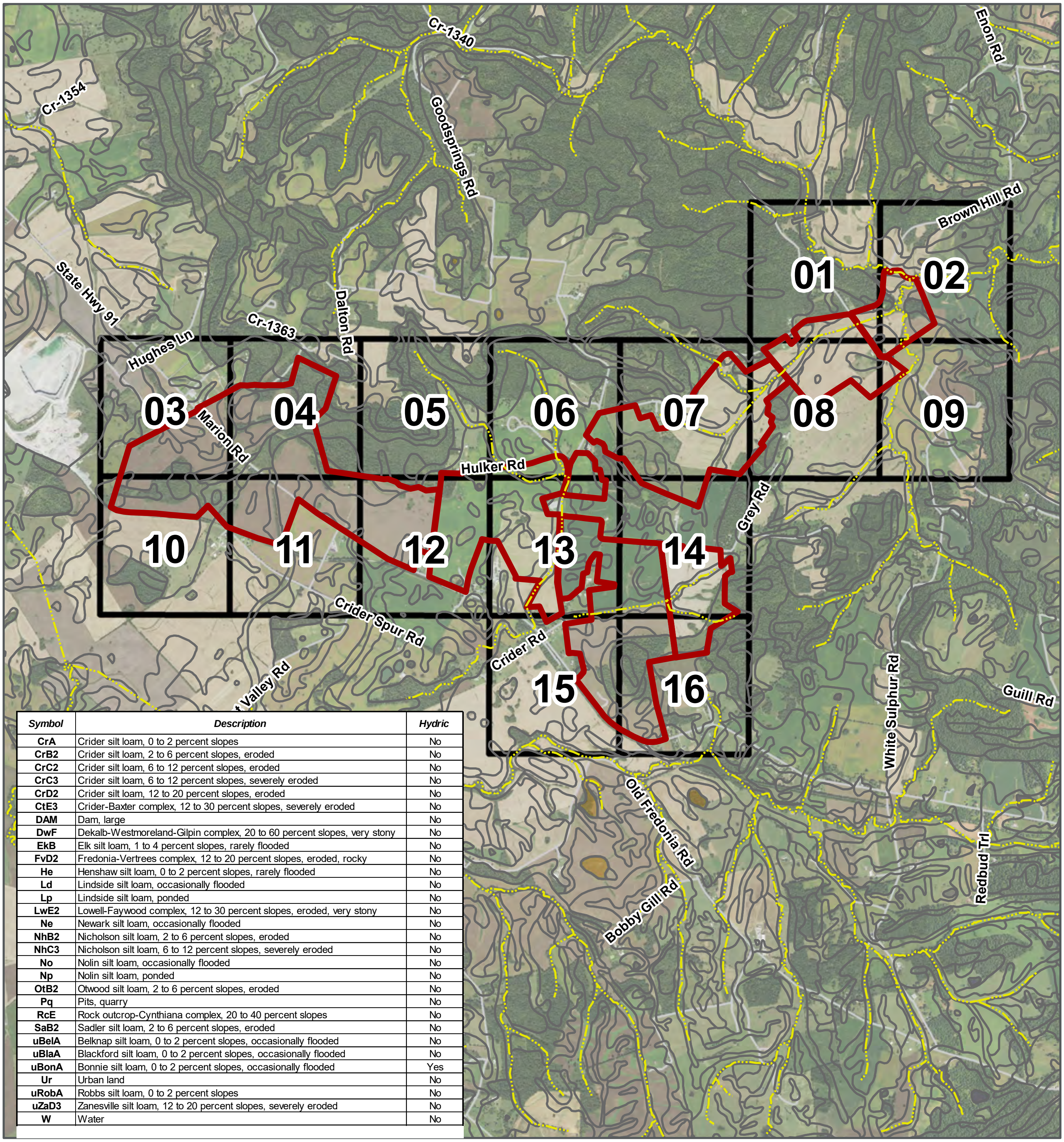

Symbol	Description	Hydric
CrA	Crider silt loam, 0 to 2 percent slopes	No
CrB2	Crider silt loam, 2 to 6 percent slopes, eroded	No
CrC2	Crider silt loam, 6 to 12 percent slopes, eroded	No
CrC3	Crider silt loam, 6 to 12 percent slopes, severely eroded	No
CrD2	Crider silt loam, 12 to 20 percent slopes, eroded	No
CtE3	Crider-Baxter complex, 12 to 30 percent slopes, severely eroded	No
DAM	Dam, large	No
DwF	Dekalb-Westmoreland-Gilpin complex, 20 to 60 percent slopes, very stony	No
EkB	Elk silt loam, 1 to 4 percent slopes, rarely flooded	No
FvD2	Fredonia-Vertrees complex, 12 to 20 percent slopes, eroded, rocky	No
He	Henshaw silt loam, 0 to 2 percent slopes, rarely flooded	No
Ld	Lindside silt loam, occasionally flooded	No
Lp	Lindside silt loam, ponded	No
LwE2	Lowell-Faywood complex, 12 to 30 percent slopes, eroded, very stony	No
Ne	Newark silt loam, occasionally flooded	No
NhB2	Nicholson silt loam, 2 to 6 percent slopes, eroded	No
NhC3	Nicholson silt loam, 6 to 12 percent slopes, severely eroded	No
No	Nolin silt loam, occasionally flooded	No
Np	Nolin silt loam, ponded	No
OtB2	Otwood silt loam, 2 to 6 percent slopes, eroded	No
Pq	Pits, quarry	No
RcE	Rock outcrop-Cynthiana complex, 20 to 40 percent slopes	No
SaB2	Sadler silt loam, 2 to 6 percent slopes, eroded	No
uBelA	Belknap silt loam, 0 to 2 percent slopes, occasionally flooded	No
uBlaA	Blackford silt loam, 0 to 2 percent slopes, occasionally flooded	No
uBonA	Bonnie silt loam, 0 to 2 percent slopes, occasionally flooded	Yes
Ur	Urban land	No
uRobA	Robbs silt loam, 0 to 2 percent slopes	No
uZaD3	Zanesville silt loam, 12 to 20 percent slopes, severely eroded	No
W	Water	No

0 2,000 4,000 Feet
0 400 800 1,200 Meters

NHD Flowline
Study Area
Soil Unit
Soil Unit - Hydric
Map Index

N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.00: Soil Survey & NHD (2018 Aerial)
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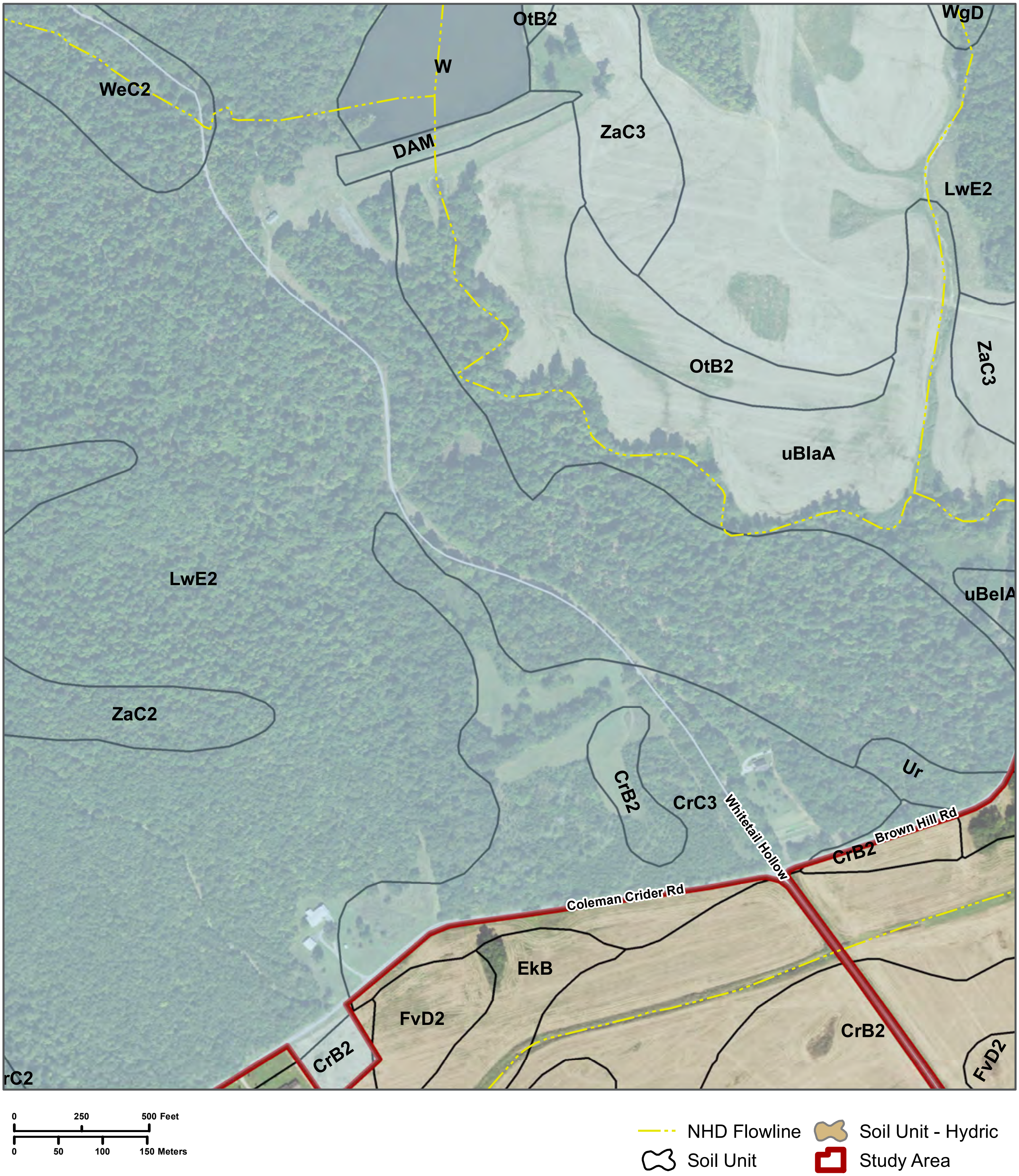

N
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Crider Quad
Project No.
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Figure 4.01: Soil Survey & NHD
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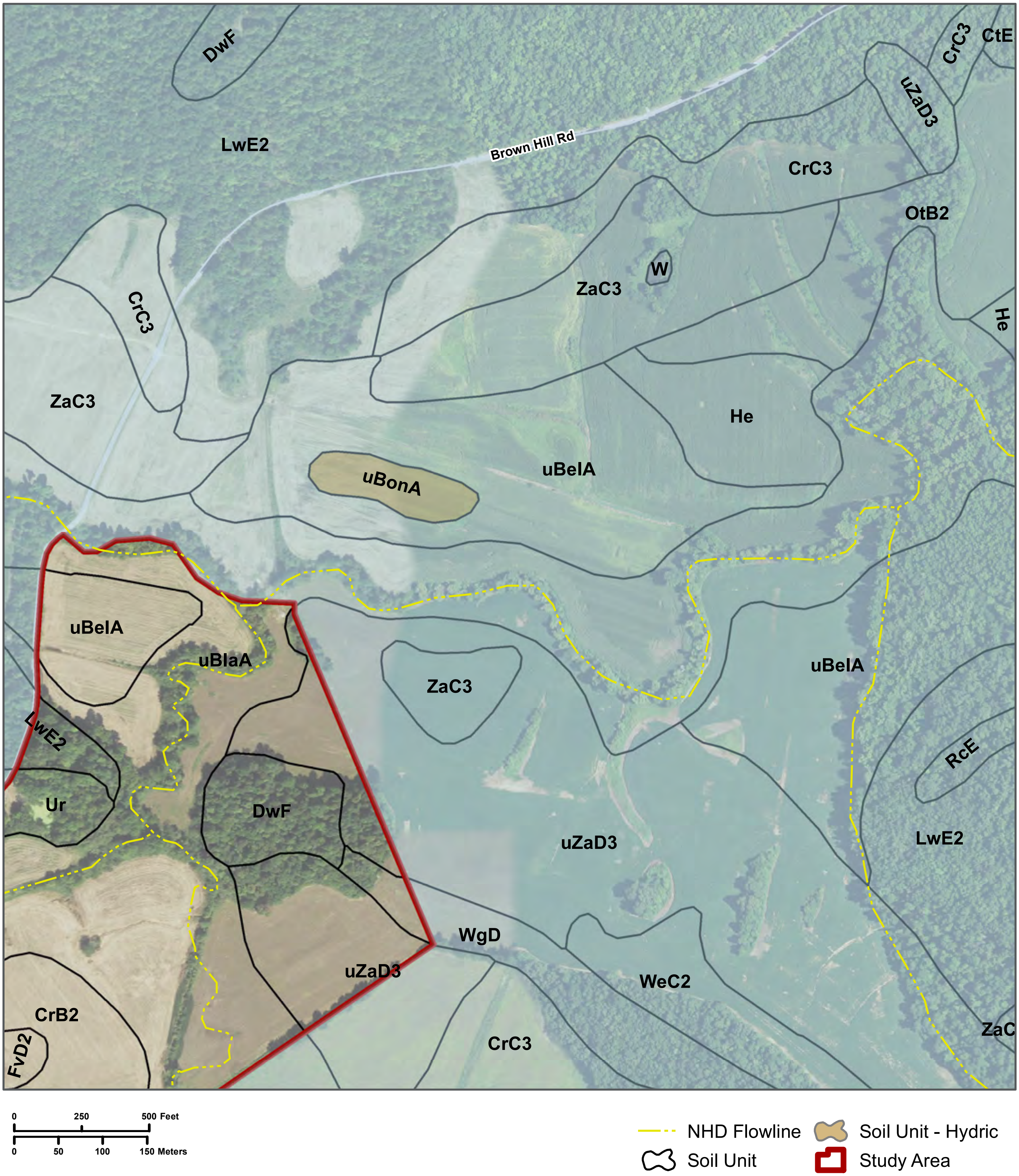

7.5' Quadrangles:
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Crider Quad
Project No.
E320201000

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Figure 4.02: Soil Survey & NHD (2018 Aerial)

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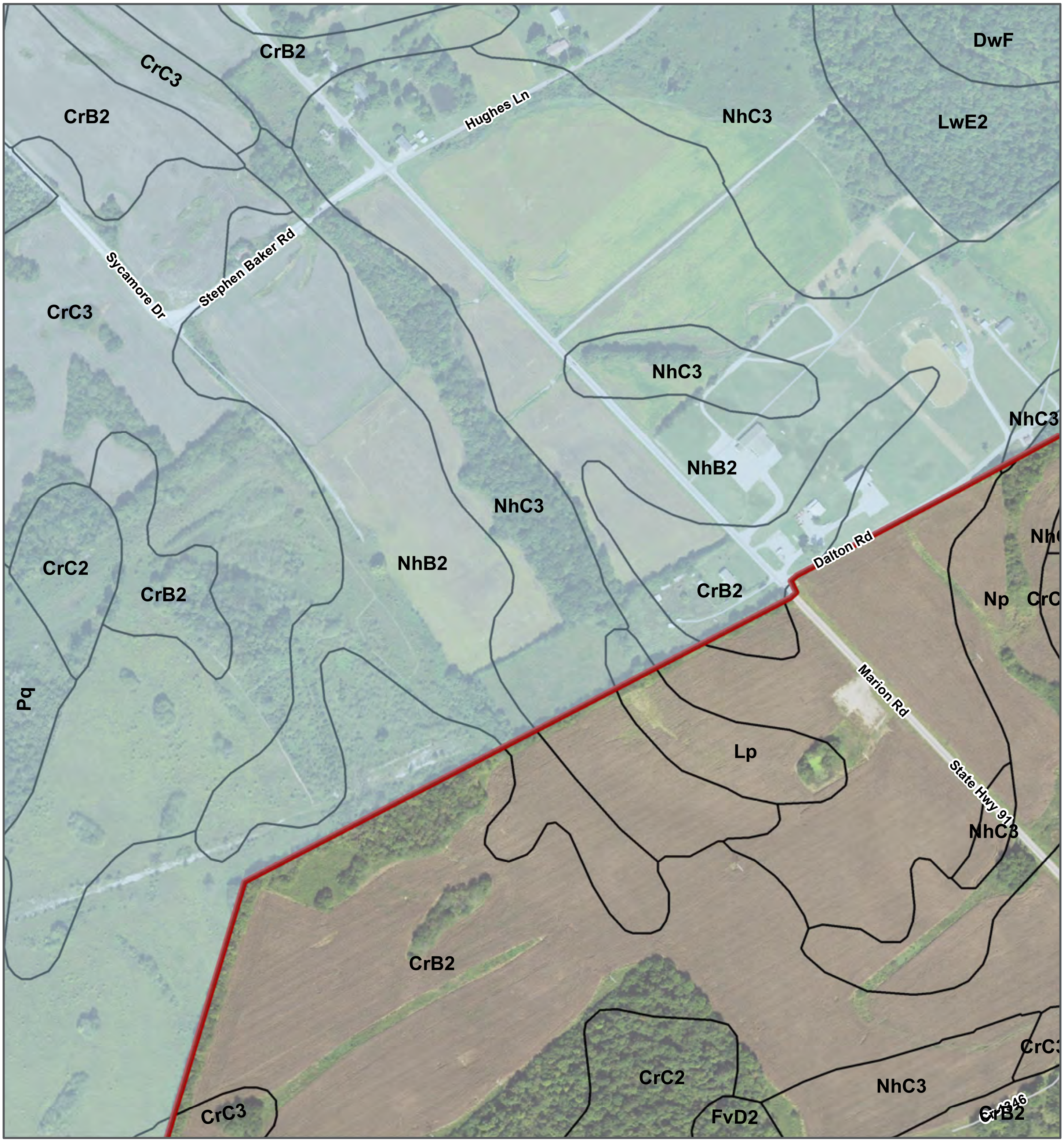

0 250 500 Feet
0 50 100 150 Meters

NHD Flowline
Soil Unit
Soil Unit - Hydric
Study Area

N W E S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.03: Soil Survey & NHD (2018 Aerial)

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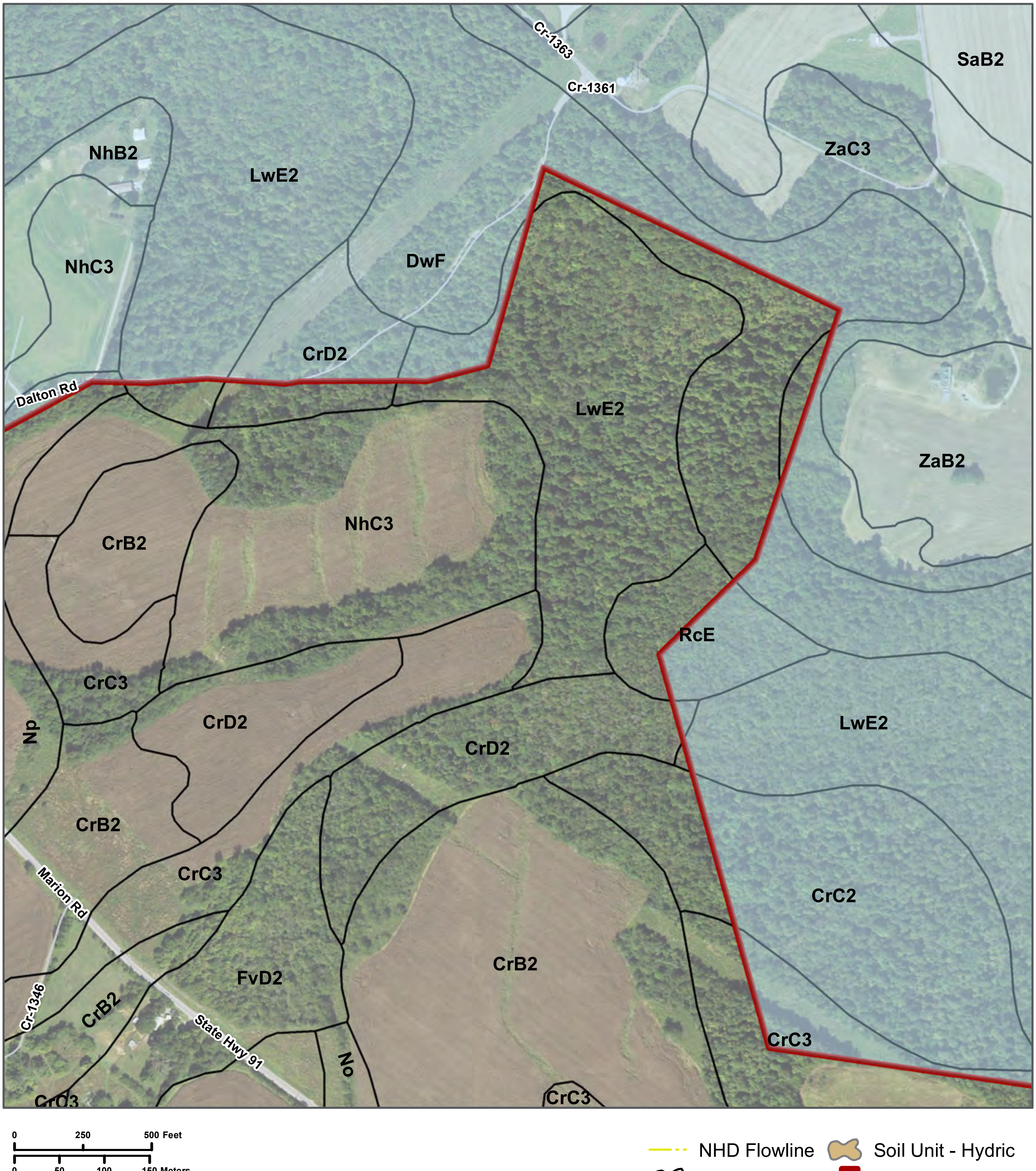

7.5' Quadrangles:
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Crider Quad
Project No.
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Figure 4.04: Soil Survey & NHD (2018 Aerial)
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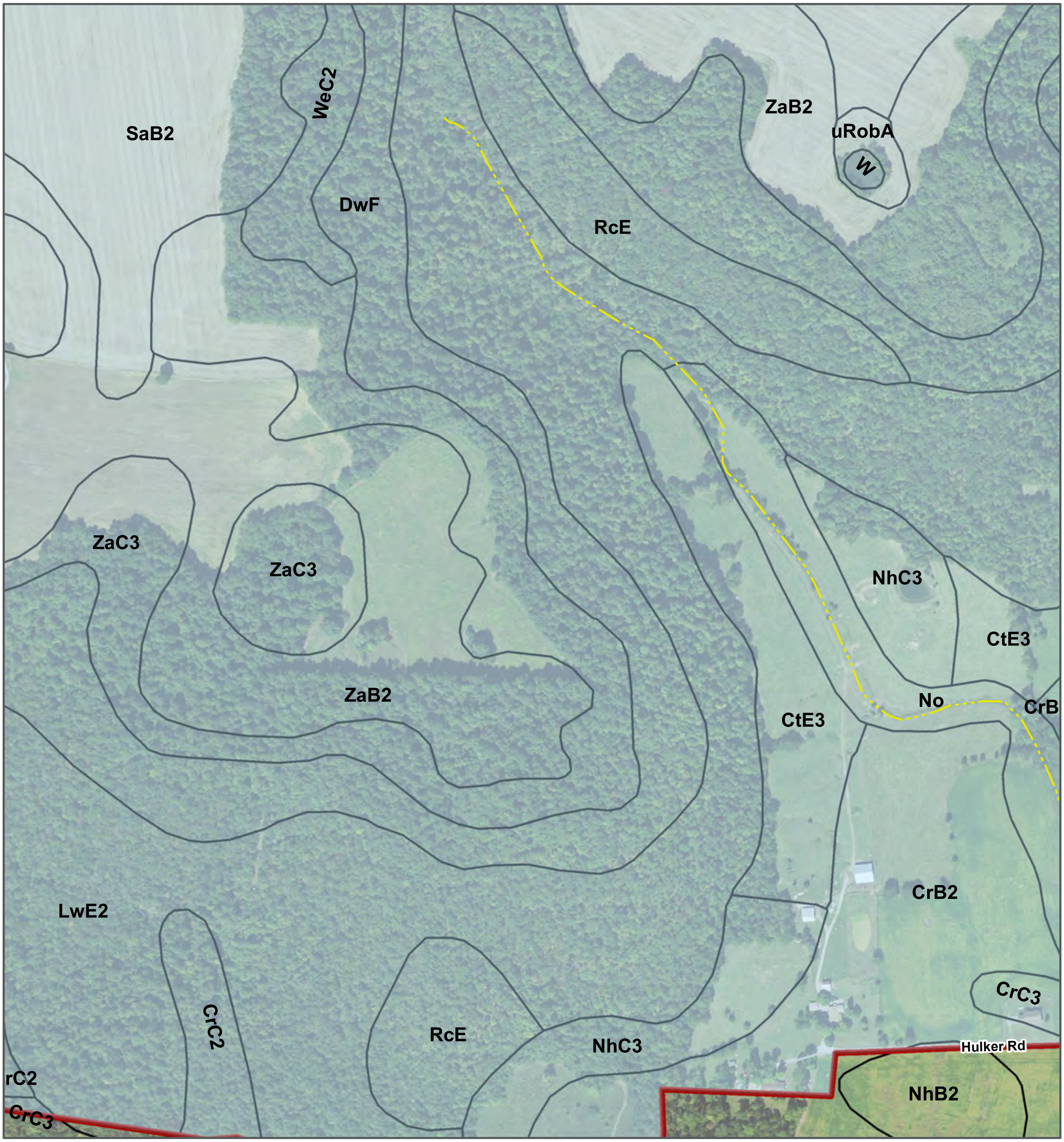

0 250 500 Feet

0 50 100 150 Meters

NHD Flowline
Soil Unit - Hydric
Soil Unit
Study Area

N
W E
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 4.05: Soil Survey & NHD (2018 Aerial)

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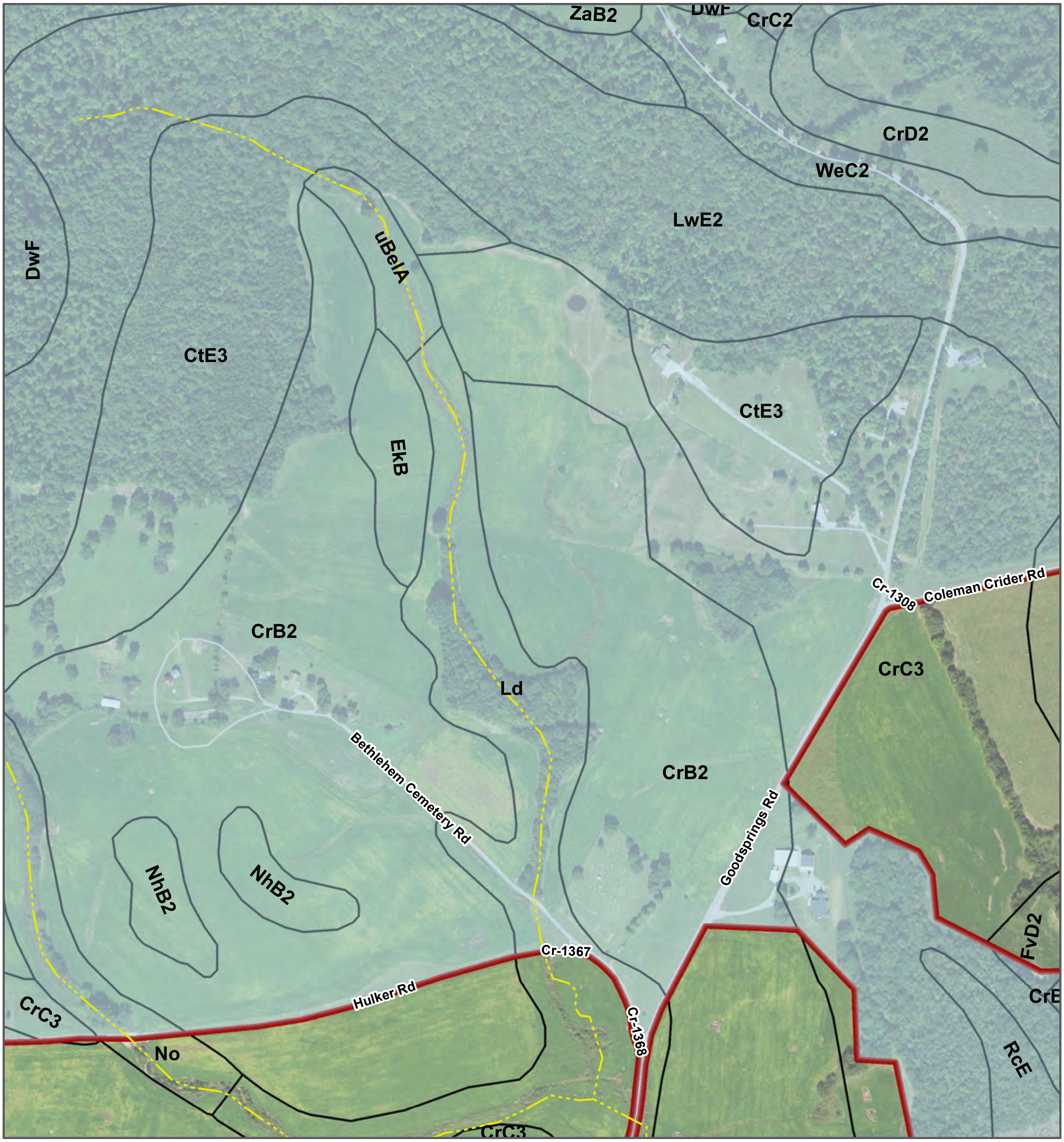

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0 50 100 150 Meters

NHD Flowline
Soil Unit
Soil Unit - Hydric
Study Area

N W E S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 4.06: Soil Survey & NHD (2018 Aerial)
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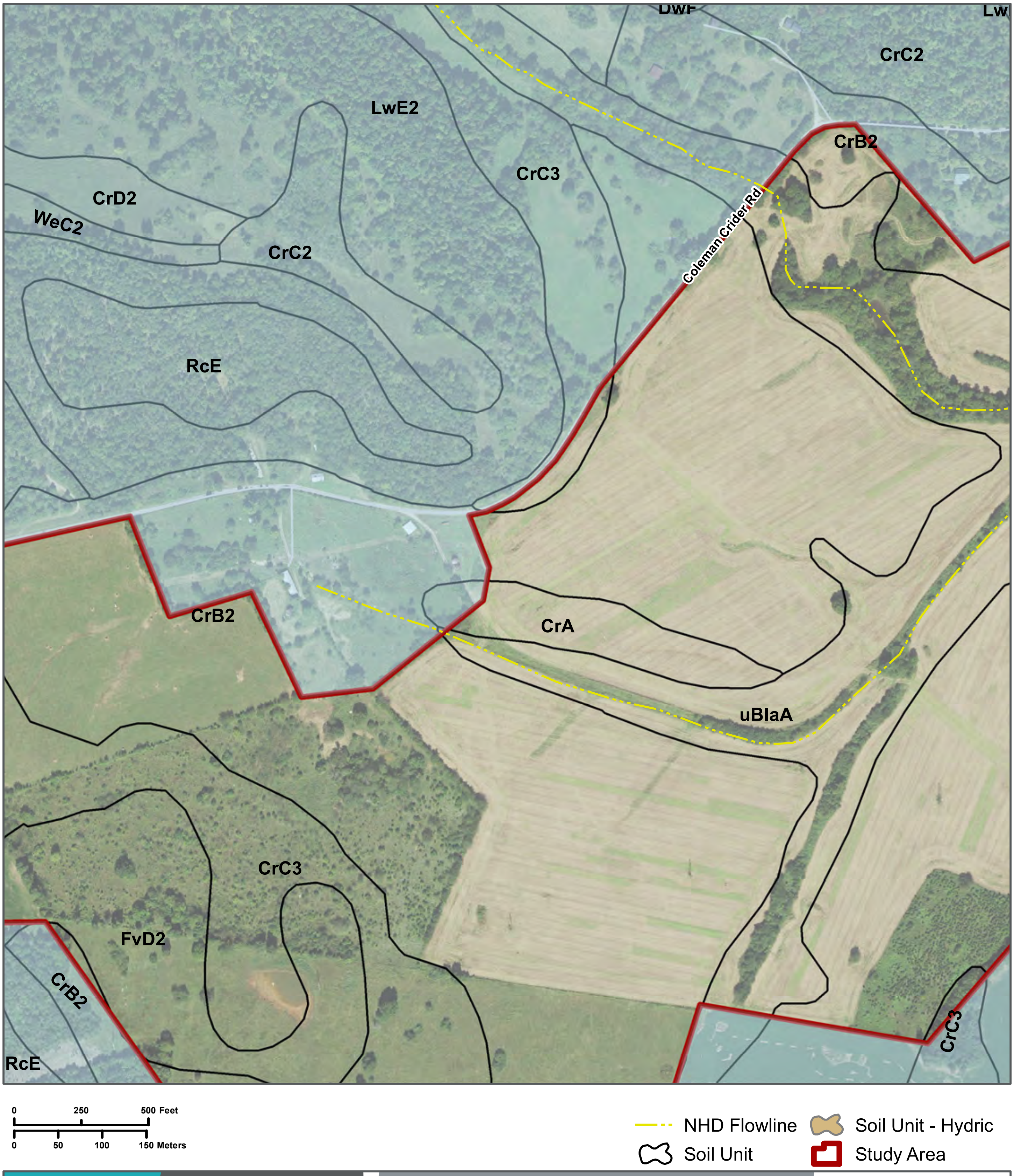

NHD Flowline
Soil Unit
Soil Unit - Hydric
Study Area

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.07: Soil Survey & NHD (2018 Aerial)

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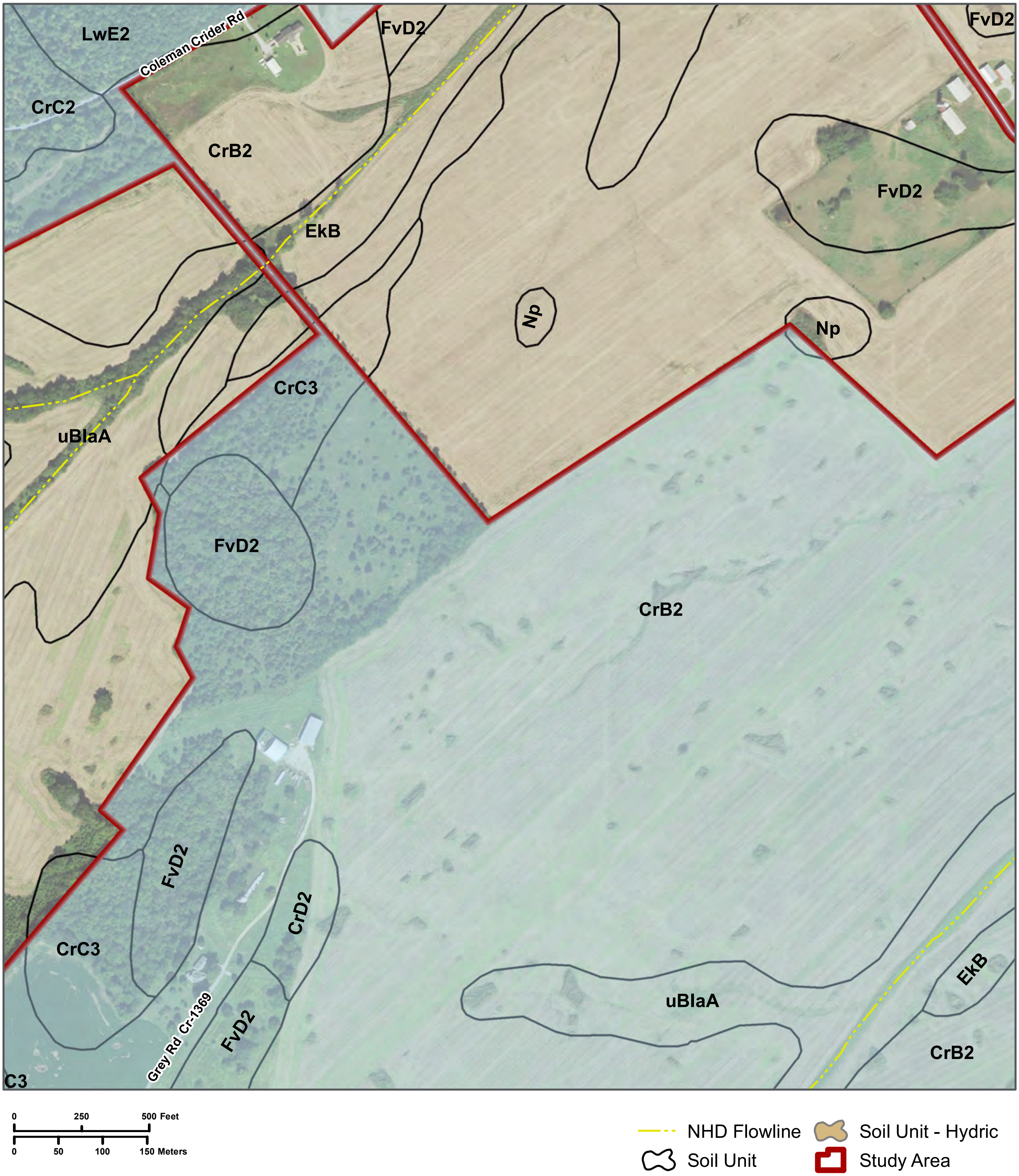

7.5' Quadrangles:
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Figure 4.08: Soil Survey & NHD
(2018 Aerial)
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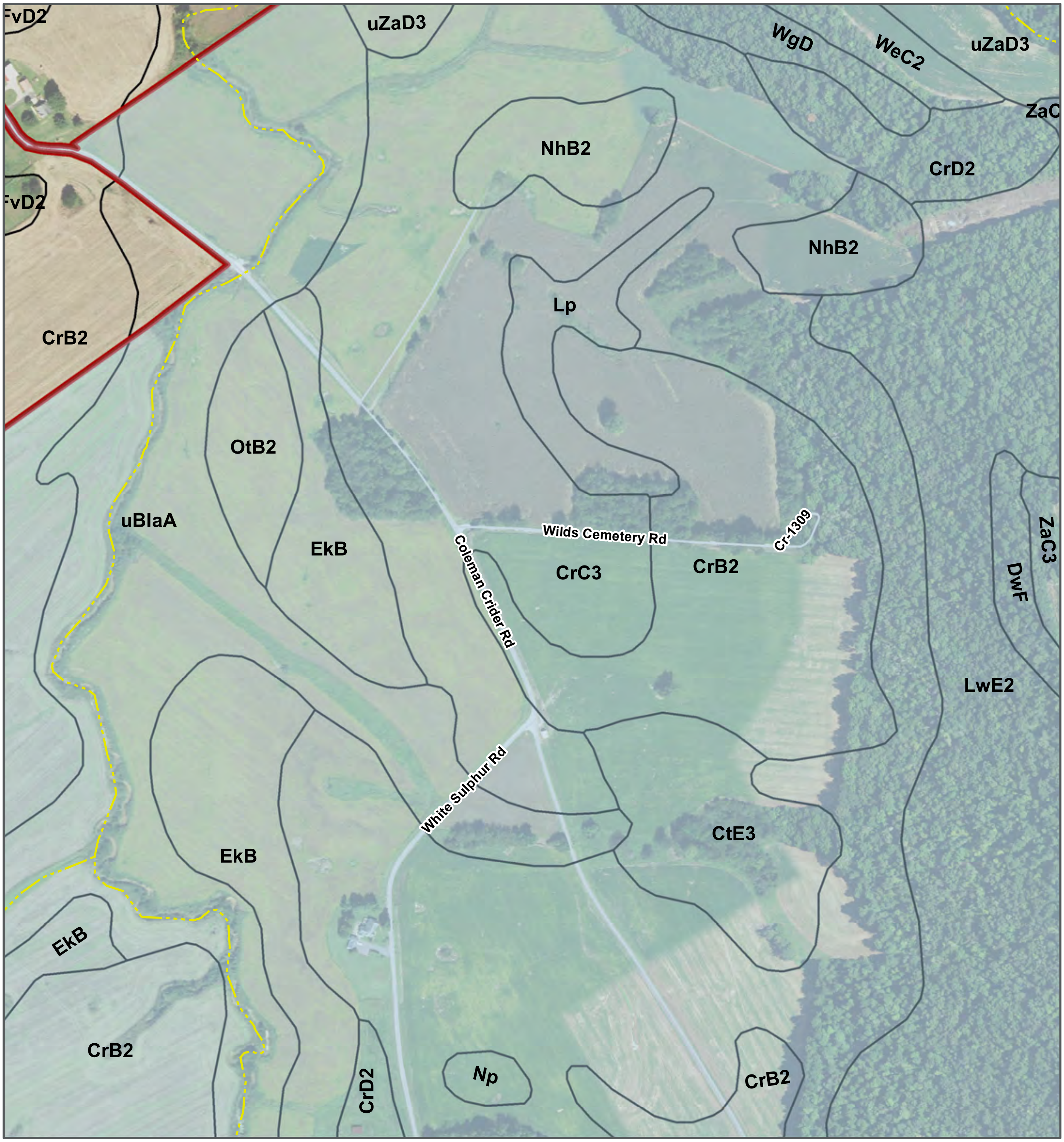

0 250 500 Feet
0 50 100 150 Meters

NHD Flowline
Soil Unit
Soil Unit - Hydric
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 4.09: Soil Survey & NHD (2018 Aerial)

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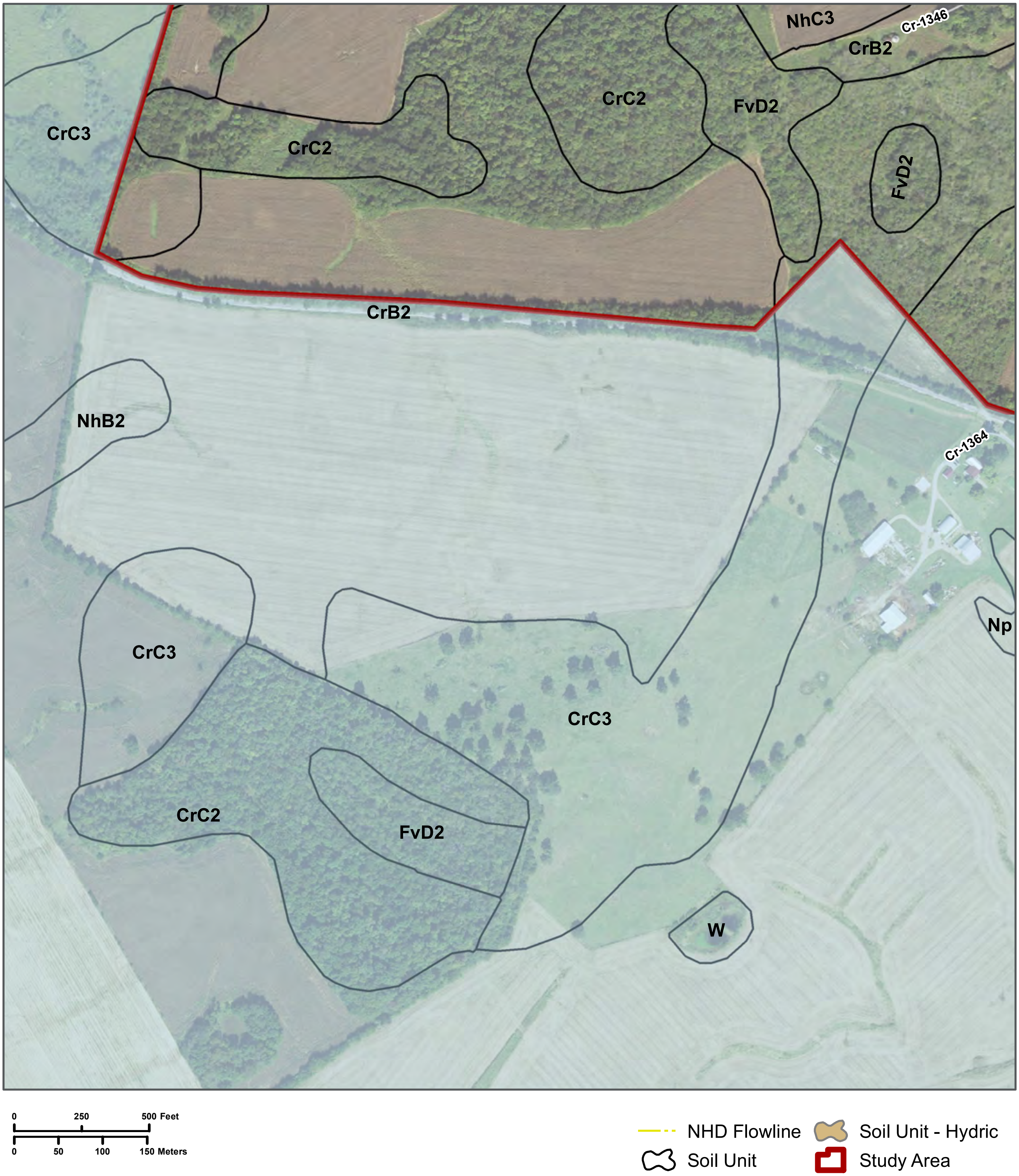

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.10: Soil Survey & NHD (2018 Aerial)

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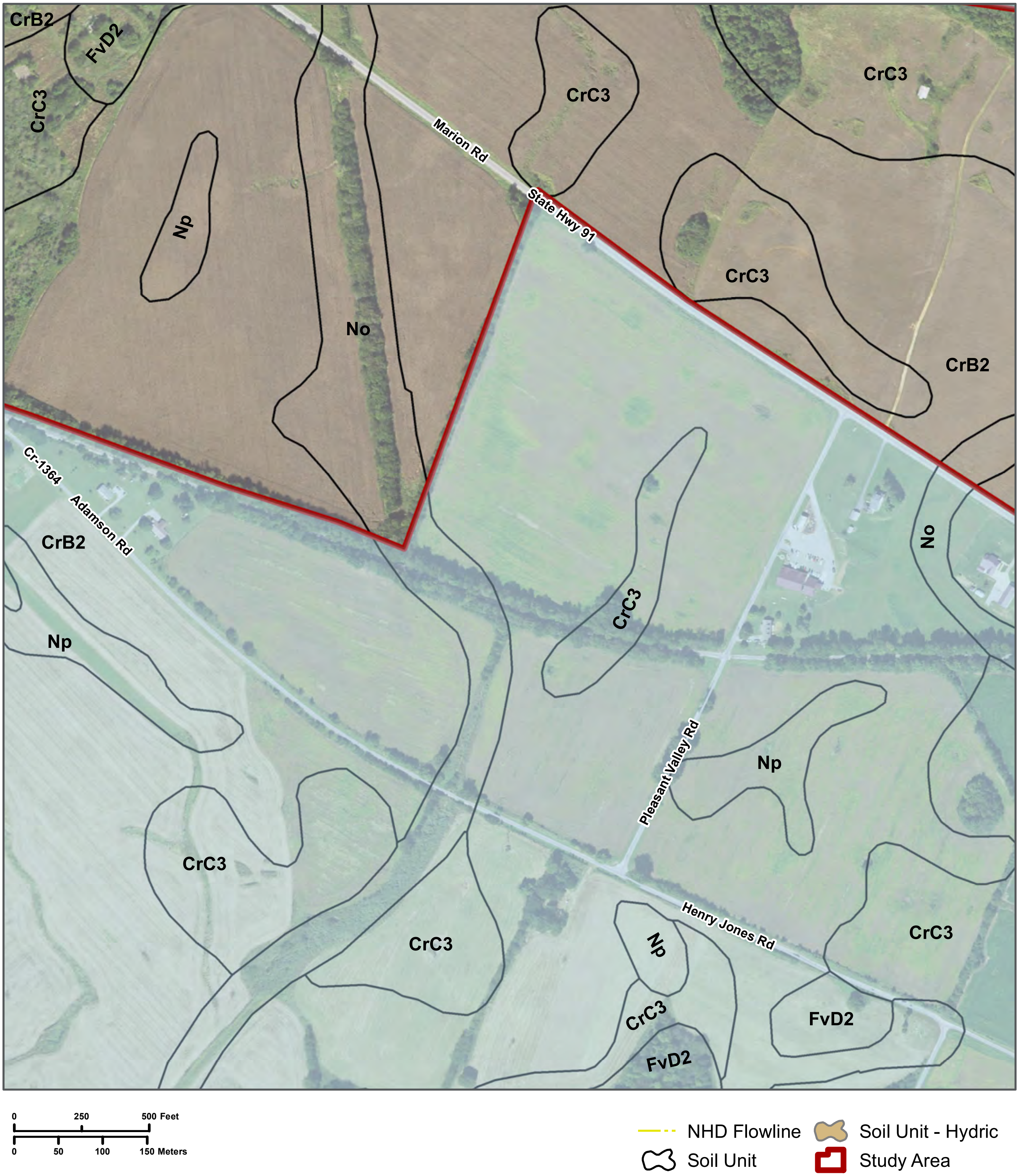

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.11: Soil Survey & NHD (2018 Aerial)

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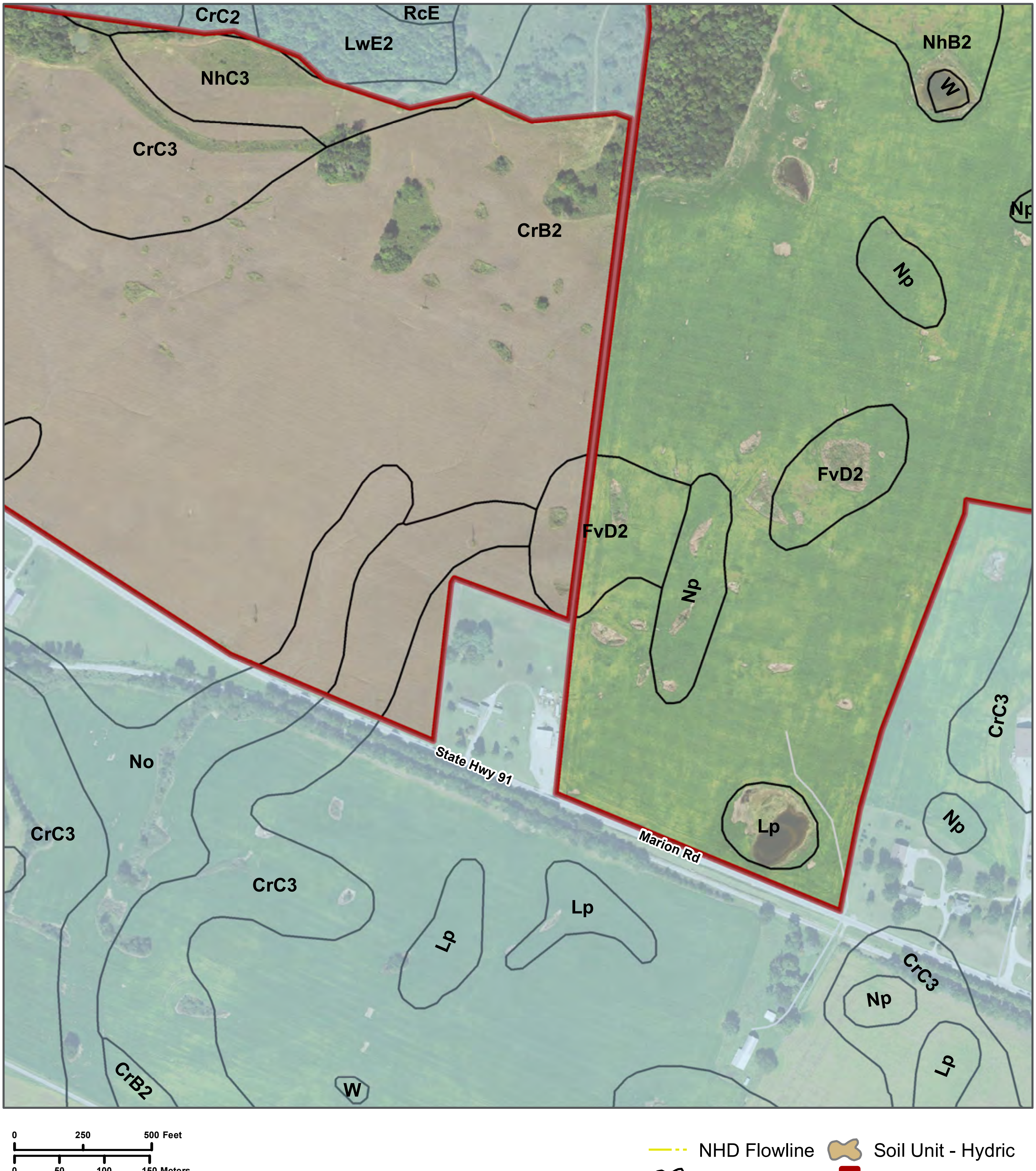

N W E S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 4.12: Soil Survey & NHD (2018 Aerial)

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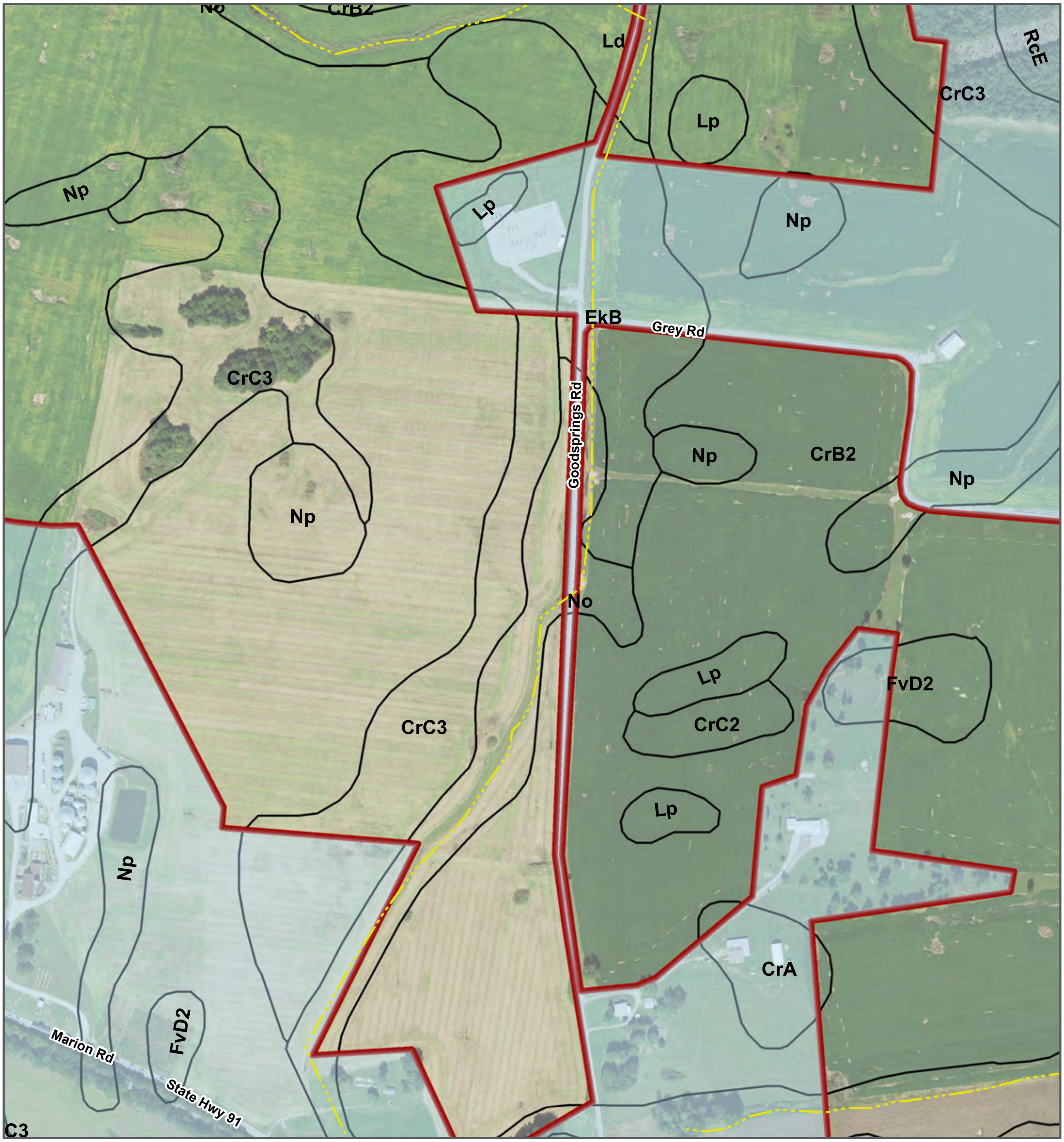

0 250 500 Feet

0 50 100 150 Meters

NHD Flowline

Soil Unit

Soil Unit - Hydric

Study Area

N W E S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.13: Soil Survey & NHD (2018 Aerial)

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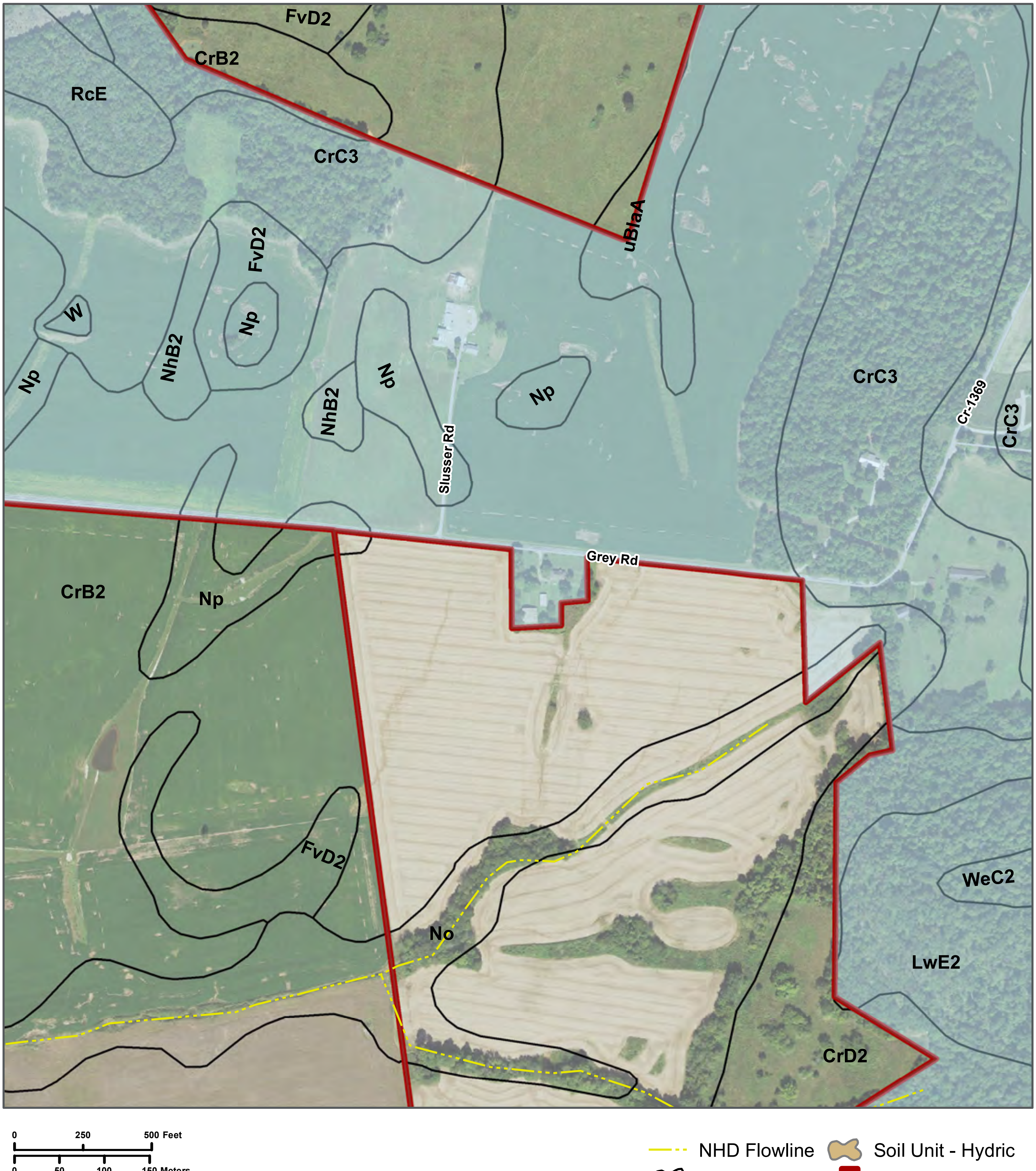

NHD Flowline
Soil Unit
Soil Unit - Hydric
Study Area

N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 4.14: Soil Survey & NHD
(2018 Aerial)
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 4.15: Soil Survey & NHD (2018 Aerial)

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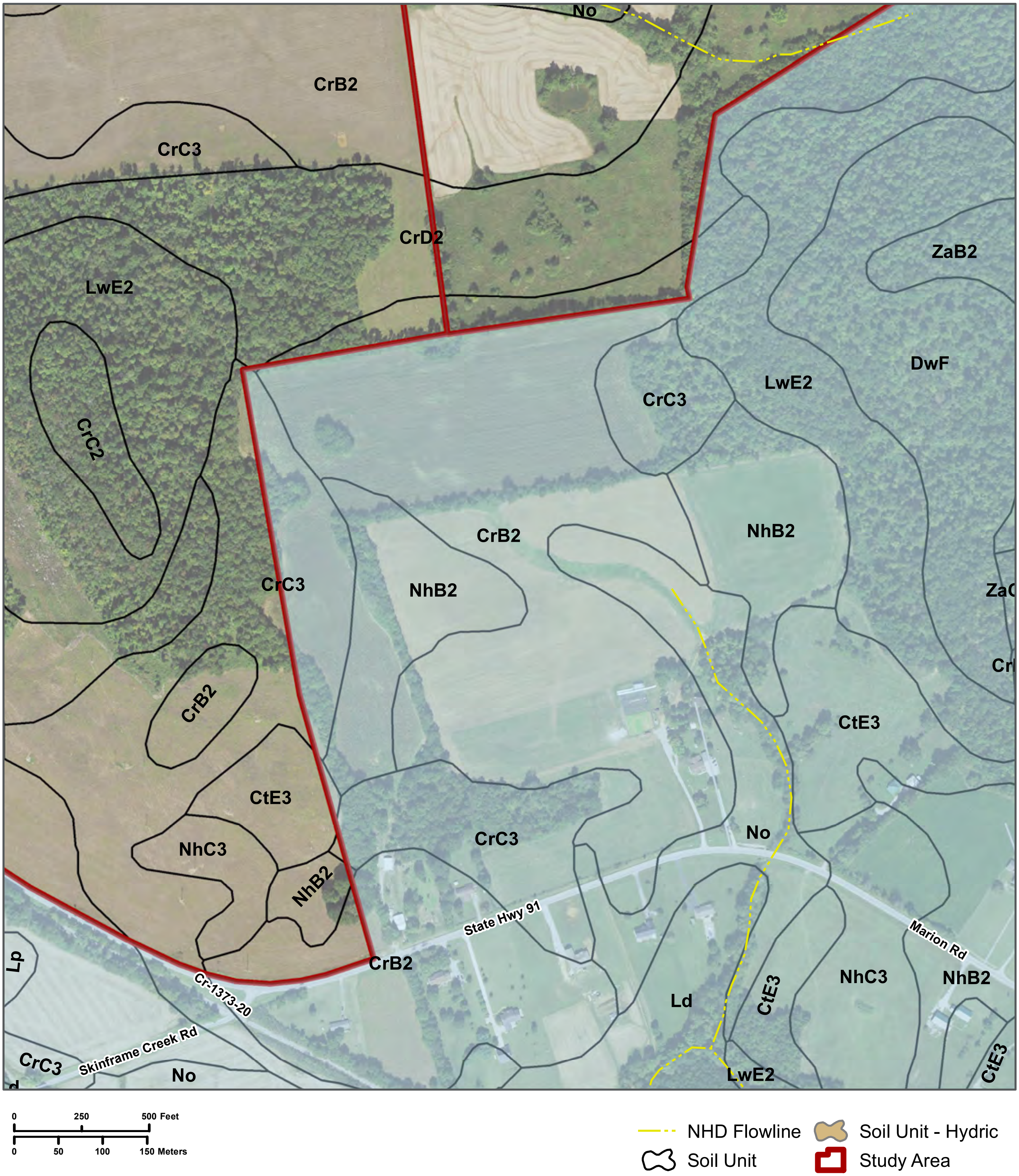

N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 4.16: Soil Survey & NHD (2018 Aerial)

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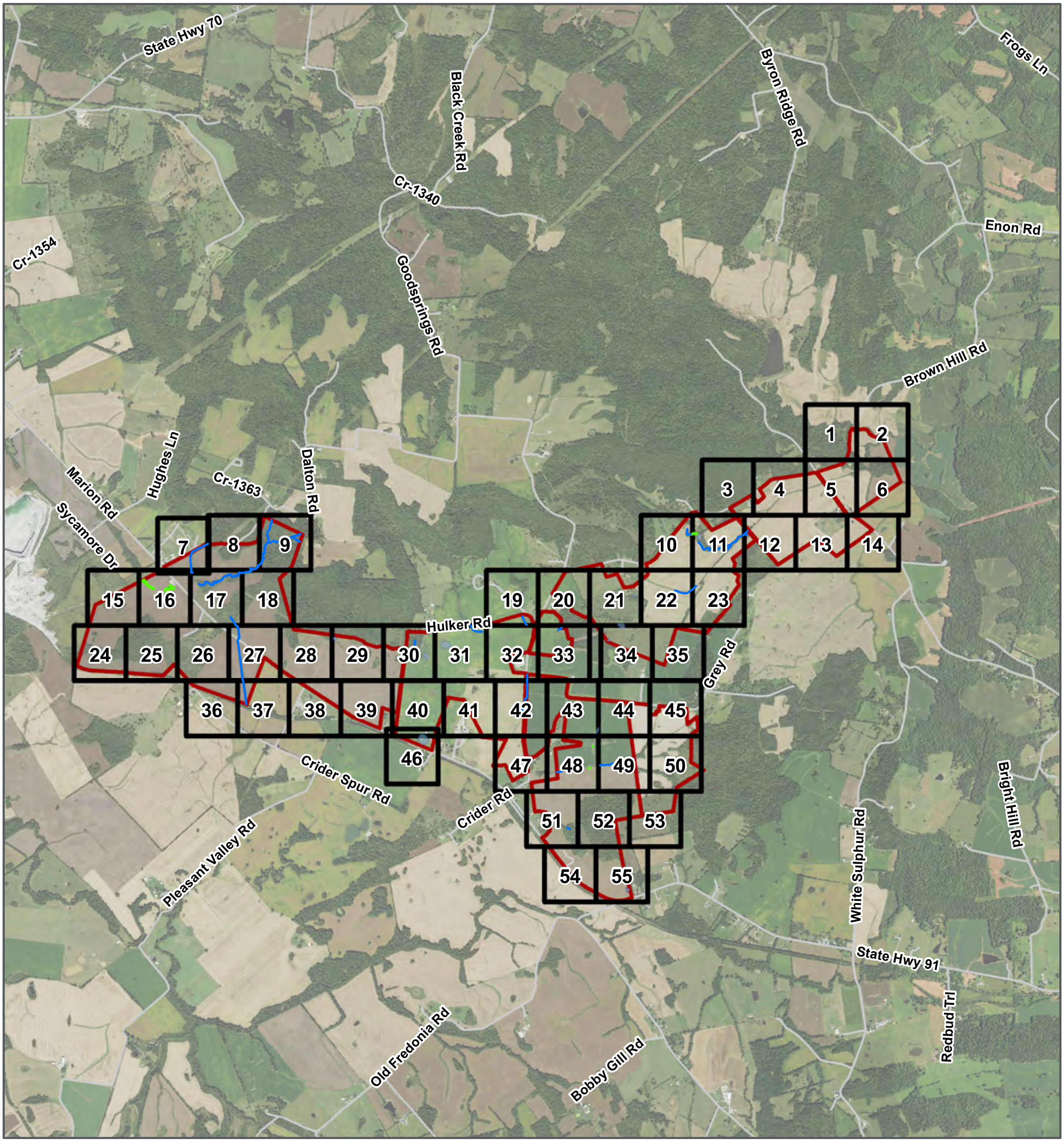

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.00: Delineation Overview
(2018 Aerial)
Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.1: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
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Crider Quad
Project No.
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Figure 5.2: Delineated Features (2018 Aerial)

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0 100 200 Feet

0 20 40 60 Meters

Study Area

N
W E
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.3: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.4: Delineated Features (2018 Aerial)

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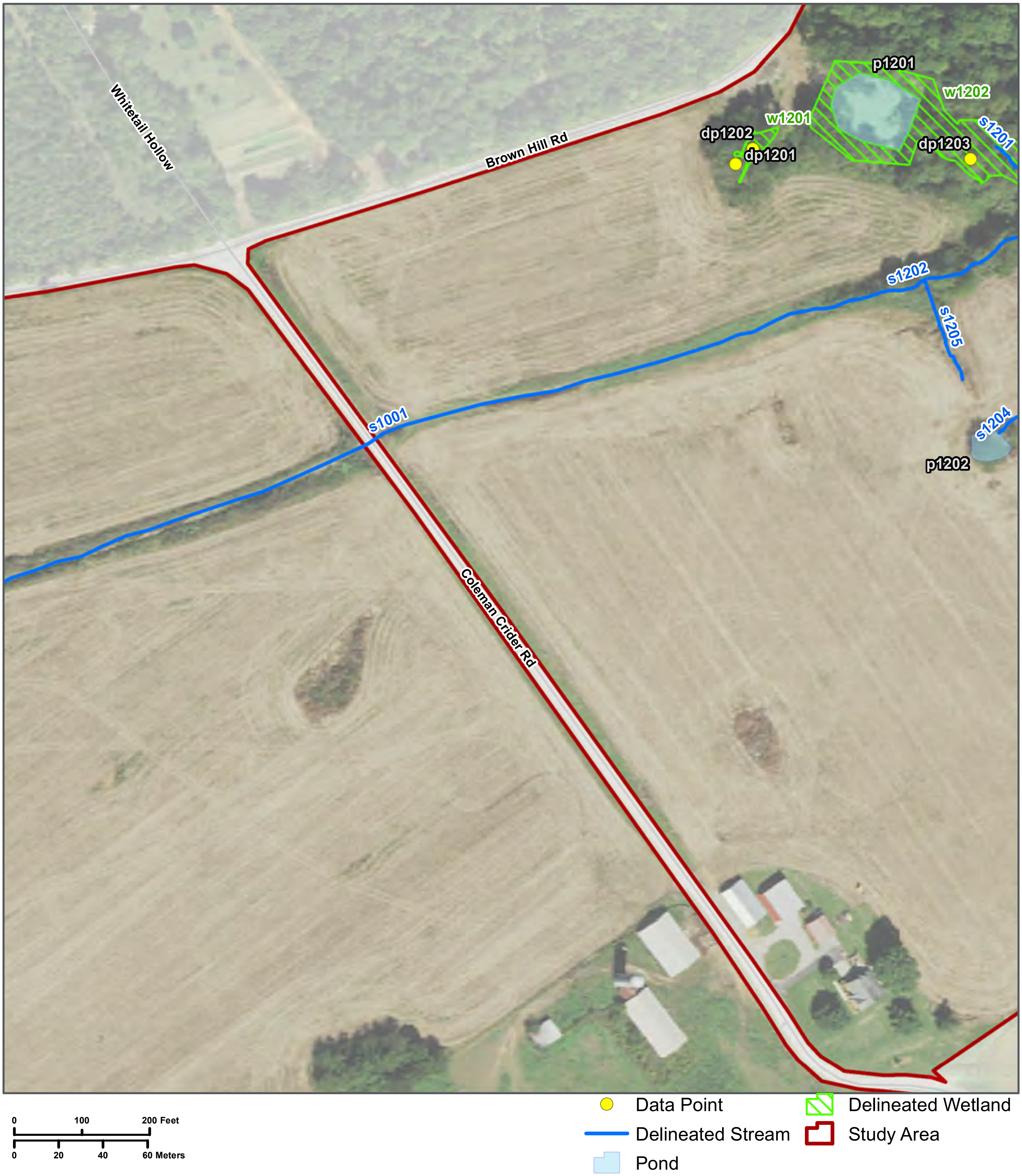

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.5: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.6: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.7: Delineated Features
(2018 Aerial)
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.8: Delineated Features (2018 Aerial)

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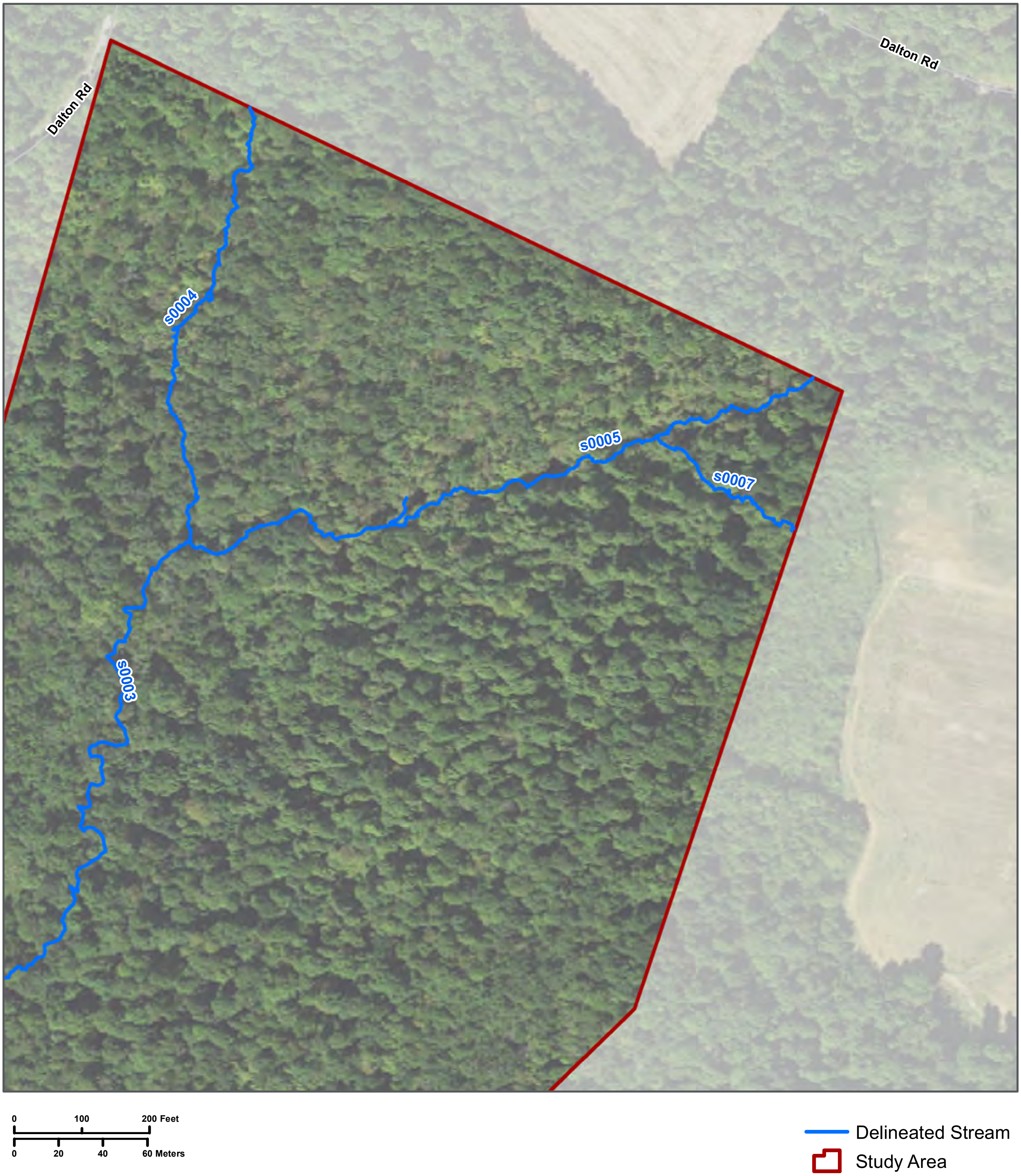

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.9: Delineated Features (2018 Aerial)

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0 100 200 Feet
0 20 40 60 Meters

Delineated Stream
Delineated Wetland
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.10: Delineated Features (2018 Aerial)

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Golden Solar, LLC
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0 100 200 Feet
0 20 40 60 Meters

Data Point
Delineated Stream
Pond
Delineated Wetland
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.11: Delineated Features (2018 Aerial)

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Regulated Waters Delineation Report
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Caldwell County, Kentucky

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N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.12: Delineated Features (2018 Aerial)
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Regulated Waters Delineation Report
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.13: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.14: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.15: Delineated Features (2018 Aerial)

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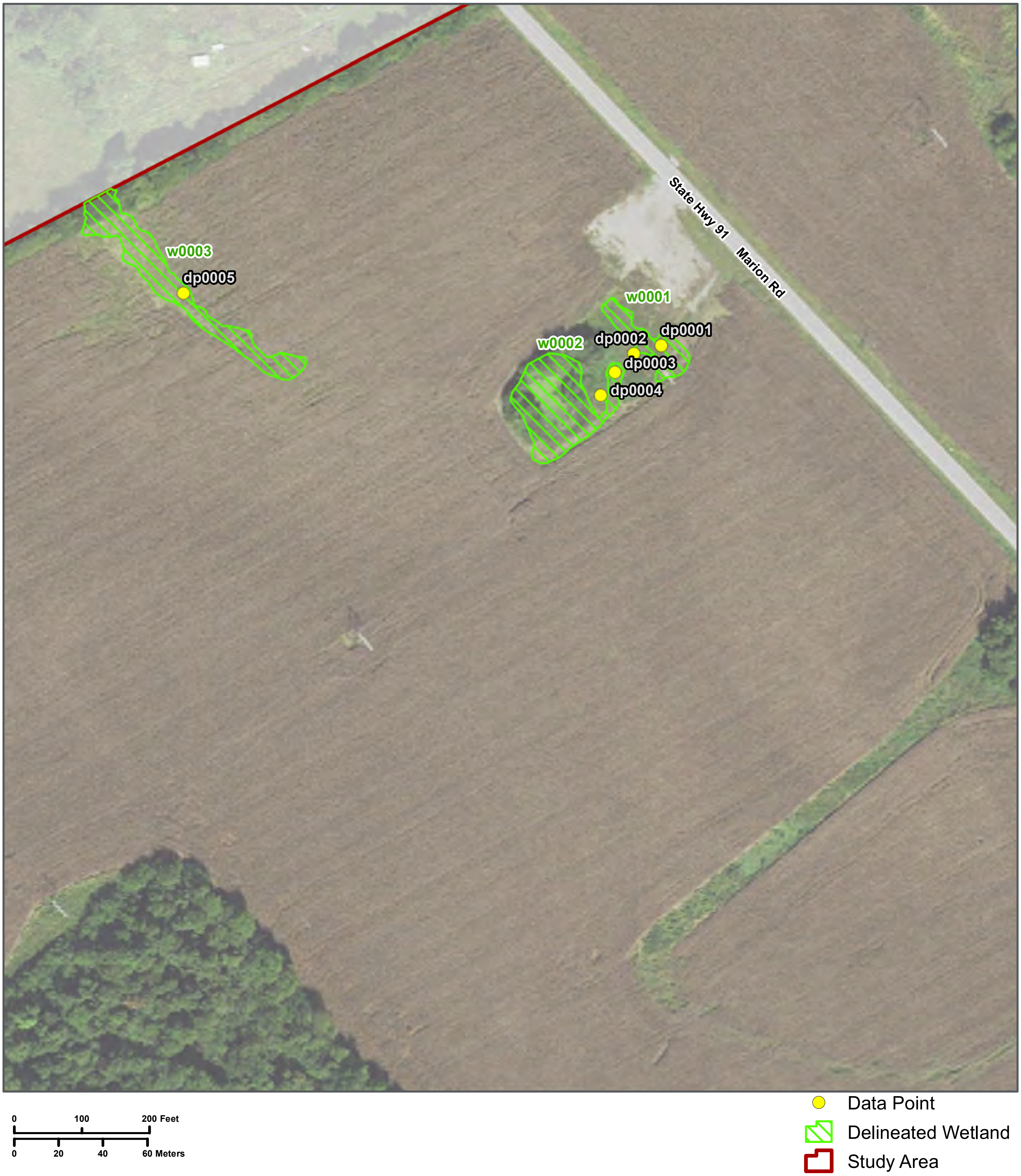

N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.16: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.17: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.18: Delineated Features (2018 Aerial)
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0 100 200 Feet
0 20 40 60 Meters

Delineated Stream
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.19: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.20: Delineated Features (2018 Aerial)

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Saved By: Stephen.LaFon

0 100 200 Feet
0 20 40 60 Meters

Pond
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.21: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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www.cardno.com

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.22: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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Delineated Stream
Study Area

N
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S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.23: Delineated Features (2018 Aerial)

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Golden Solar, LLC
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0 100 200 Feet
0 20 40 60 Meters

Subterranean Waters
Delineated Stream
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.24: Delineated Features
(2018 Aerial)
Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.25: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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0 100 200 Feet

0 20 40 60 Meters

Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.26: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.27: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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0 100 200 Feet

0 20 40 60 Meters

Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.28: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.29: Delineated Features (2018 Aerial)

Golden Solar
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Golden Solar, LLC
Caldwell County, Kentucky

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Delineated Stream
Pond
Study Area

N
W
E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.30: Delineated Features (2018 Aerial)
Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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0 100 200 Feet
0 20 40 60 Meters

Delineated Stream
Pond
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.31: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.32: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.33: Delineated Features (2018 Aerial)

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Regulated Waters Delineation Report
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Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.34: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
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Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.35: Delineated Features (2018 Aerial)
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.36: Delineated Features (2018 Aerial)

Golden Solar
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.37: Delineated Features (2018 Aerial)

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0 100 200 Feet
0 20 40 60 Meters

Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.38: Delineated Features (2018 Aerial)

Golden Solar
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.39: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.40: Delineated Features (2018 Aerial)

Golden Solar
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Golden Solar, LLC
Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.41: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.42: Delineated Features (2018 Aerial)

Golden Solar

Regulated Waters Delineation Report

Golden Solar, LLC

Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.43: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.44: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.45: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.46: Delineated Features (2018 Aerial)

Golden Solar
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.47: Delineated Features (2018 Aerial)

Golden Solar
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Caldwell County, Kentucky

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0 100 200 Feet
0 20 40 60 Meters

Data Point
Delineated Stream
Delineated Wetland
Study Area

N
W E
S

7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.48: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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N
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.49: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.50: Delineated Features (2018 Aerial)

Golden Solar
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Golden Solar, LLC
Caldwell County, Kentucky

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0 100 200 Feet
0 20 40 60 Meters

Delineated Stream
Study Area

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W E
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.51: Delineated Features (2018 Aerial)

Golden Solar
Regulated Waters Delineation Report
Golden Solar, LLC
Caldwell County, Kentucky

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.52: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

Figure 5.53: Delineated Features (2018 Aerial)

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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
E320201000

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Figure 5.54: Delineated Features
(2018 Aerial)
Golden Solar
Regulated Waters Delineation Report
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7.5' Quadrangles:
Fredonia Quad
Crider Quad
Project No.
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Figure 5.55: Delineated Features (2018 Aerial)

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Appendices B through E of this document were omitted to reduce file size. These appendices include site photographs, wetland delineation data sheets, wetland forms, and stream forms.

Attachment H

(Filed under seal with a Petition for Confidential Treatment)

Attachment I

(Filed under seal with a Petition for Confidential Treatment)