



Wild Grains Solar Project

Exhibit V

Visual Resource Assessment

Case No. 21-0823-EL-BGN

Visual Resource Assessment

Wild Grains Solar Project

Hoaglin Township, Van Wert County, Ohio

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

Environmental Design & Research, D.P.C. (EDR) was retained by Wild Grains Solar, LLC (the Applicant) to prepare a Visual Resource Assessment (VRA) for the up to 150 megawatt (MW) Wild Grains Solar Project (the Project), proposed to be located in Hoaglin township, Van Wert County, Ohio (see Figure 1.1).

Figure 1.1. Regional Project Location



This report has been prepared to satisfy the portions of Ohio Administrative Code (OAC) 4906-4-08(D) that relate to the identification of visually sensitive resources (VSRs), Project visibility, and potential visual impacts resulting from construction of the proposed solar-powered electric generation facility.

Recognizing these requirements, this VRA will:

- Describe the visible components of the proposed Project.
- Define the visual character of the visual study area (VSA).
- Inventory the existing VSRs within the VSA.
- Evaluate the potential visibility of the Project within the VSA.
- Create photographic simulations of the proposed Project from representative locations.
- Assess the visual impacts associated with the Project.
- Describe proposed mitigation measures that would be implemented to reduce/minimize potential visual impacts.

This VRA was prepared by a team of experienced visual resource experts in accordance with the policies, procedures, and guidelines contained in established visual resource assessment methodologies.

1.2 Project Location and Description

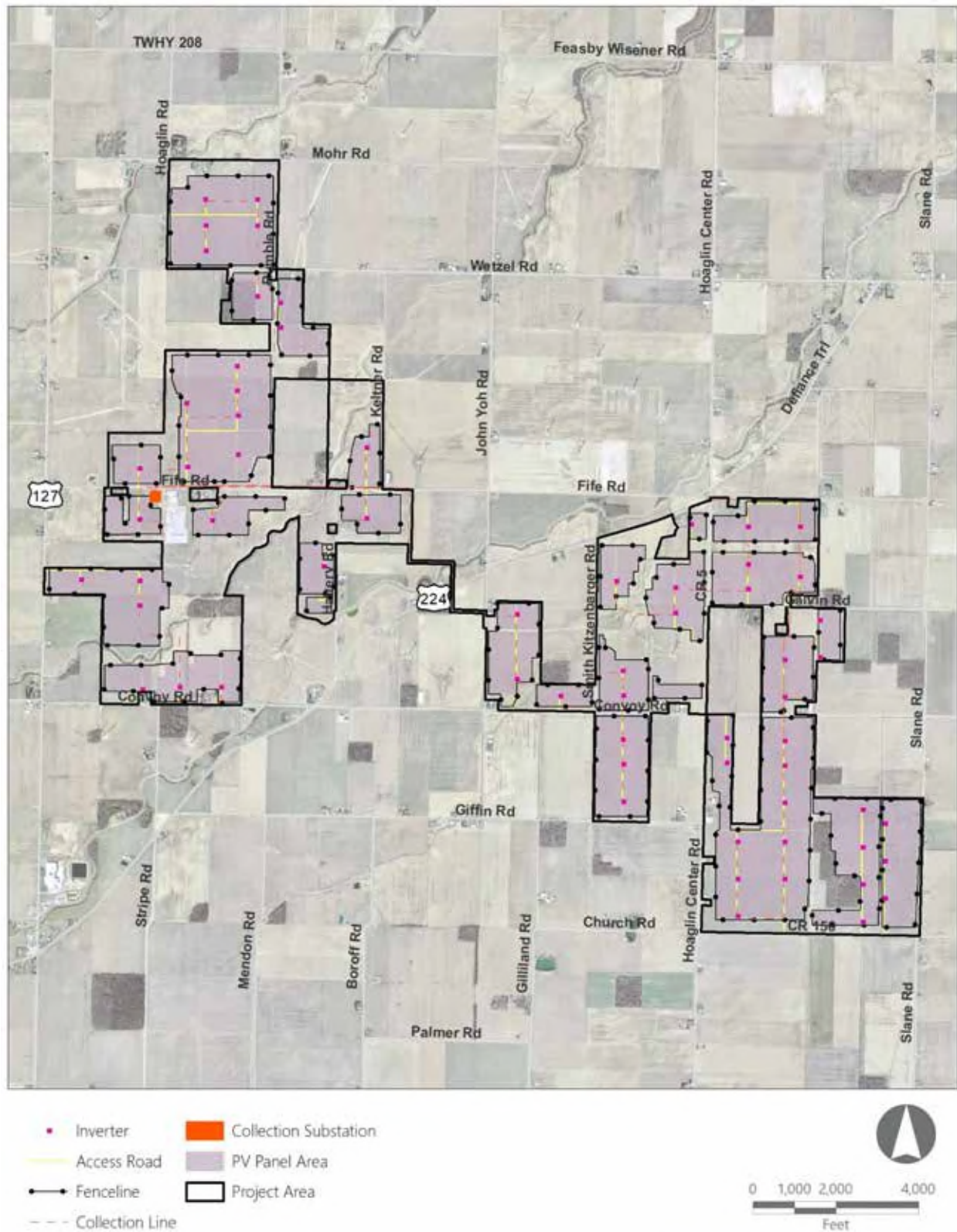
The Project is proposed to be located primarily on active agricultural land in Hoaglin township, Van Wert County, Ohio. The parcels being considered for construction of the Project total approximately 2,350 acres (the Project Area). It is anticipated that the actual amount of land required to accommodate the Project is approximately 1,000 acres.

The proposed Project is a solar-powered electric generation facility with a generating capacity of up to 150 MW. The Project will use arrays of ground-mounted photovoltaic (PV) modules, commonly known as solar panels, to provide renewable energy to the Ohio bulk power transmission system to serve the needs of electric utilities and their customers. Solar panels will be affixed to a metal racking system mounted on piles that will be driven or screwed into the ground in rows or arrays. The arrays will generally follow the existing topography of the Project Area with minimal grading or alteration of existing contours. Arrays will be grouped in separate, contiguous clusters, which will be fenced and gated for equipment security and public safety.

The PV arrays currently proposed for the Project will utilize a single-axis “tracking” style racking system. Using this system, the arrays will be oriented in a roughly north-south direction and equipped to rotate the panels from east to west so as to continuously face the direction of sunlight. Tracking arrays will face east at sunrise, rotate throughout the day, and end up facing west at sunset. When no sunlight is present, the panels will return to a stow position. The panel arrays will be connected to inverters which will convert the direct current (DC) generated by the solar panels to alternating current (AC). From the inverters, a series of below-ground interconnection cables will deliver the electricity to a proposed collection substation. At the substation the voltage will be stepped-up in order to allow connection to the regional electrical grid via a

point of interconnection (POI) switchyard on the existing American Electric Power 345 kilovolt (kV) circuit at the Maddox Creek Substation. The POI is addressed in the viewshed analysis to evaluate the full extent of Project visibility, including the collection substation and the equipment necessary for interconnection to the electric grid.

Associated support facilities include access roads and an operations and maintenance (O&M) building within the array areas. The location of proposed Project components is illustrated in Figure 1.2.

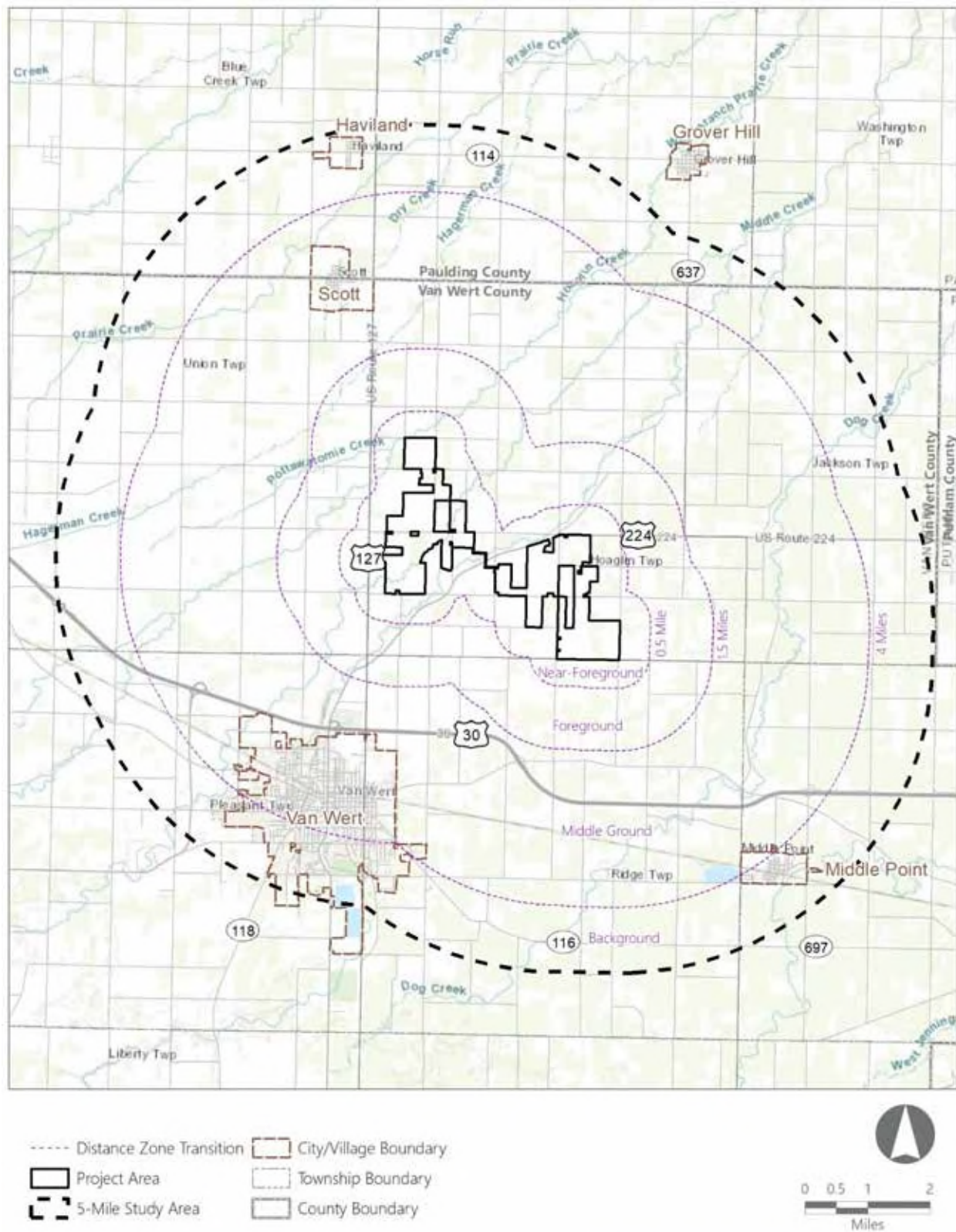
Figure 1.2. Preliminary Project Layout

1.2.1 Visual Study Area

OAC 4906-4-08(D) requires that visual impacts to recreational, scenic, and historic resources from a proposed electric generating facility be evaluated within a 10-mile radius. However, based on the low profile of the proposed equipment, and the results of the visibility analysis presented herein, it was determined that 10 miles would be an excessive VSA for a solar generation project.

To define an appropriately sized VSA, a viewshed analysis was conducted to better understand the Project's area of potential effect (see Section 2.1.1). This viewshed analysis indicates that the number of PV Panels that are potentially visible diminishes rapidly at distance beyond 1.5 miles. Though widely-spaced areas of potential visibility extend out to 5 miles, less than 10% of PV Panels will be visible from a vast majority of the VSA outside of the foreground distance zone (i.e., beyond 1.5 miles from the site).

Based on the results of the viewshed analysis, and the relatively flat terrain surrounding the Project, it was determined that a 5-mile radius from the Project would be a sufficient VSA for the purposes of this study. Beyond the distance of 5 miles, the PV panels will generally be either fully screened by existing vegetation and topography, or indistinguishable due to the limits of human visual acuity. The resulting VSA encompasses a total of approximately 147.3 square miles. The location and extent of the VSA is illustrated in Figure 1.3.

Figure 1.3. Visual Study Area

Basemap: Esri ArcGIS Online "World Topographic Map" map service.

1.2.2 Landscape Character

Definition of landscape character within a given VSA provides a useful framework for the analysis of a facility's potential visual effects. The 2016 USGS National Land Cover Database (NLCD) was used to help define the character and location of various Landscape Types (LTs) within the VSA (see Figure 1.3). The LTs defined within the VSA are presented in Table 1.1.

Table 1.1. Landscape Types Within the Visual Study Area

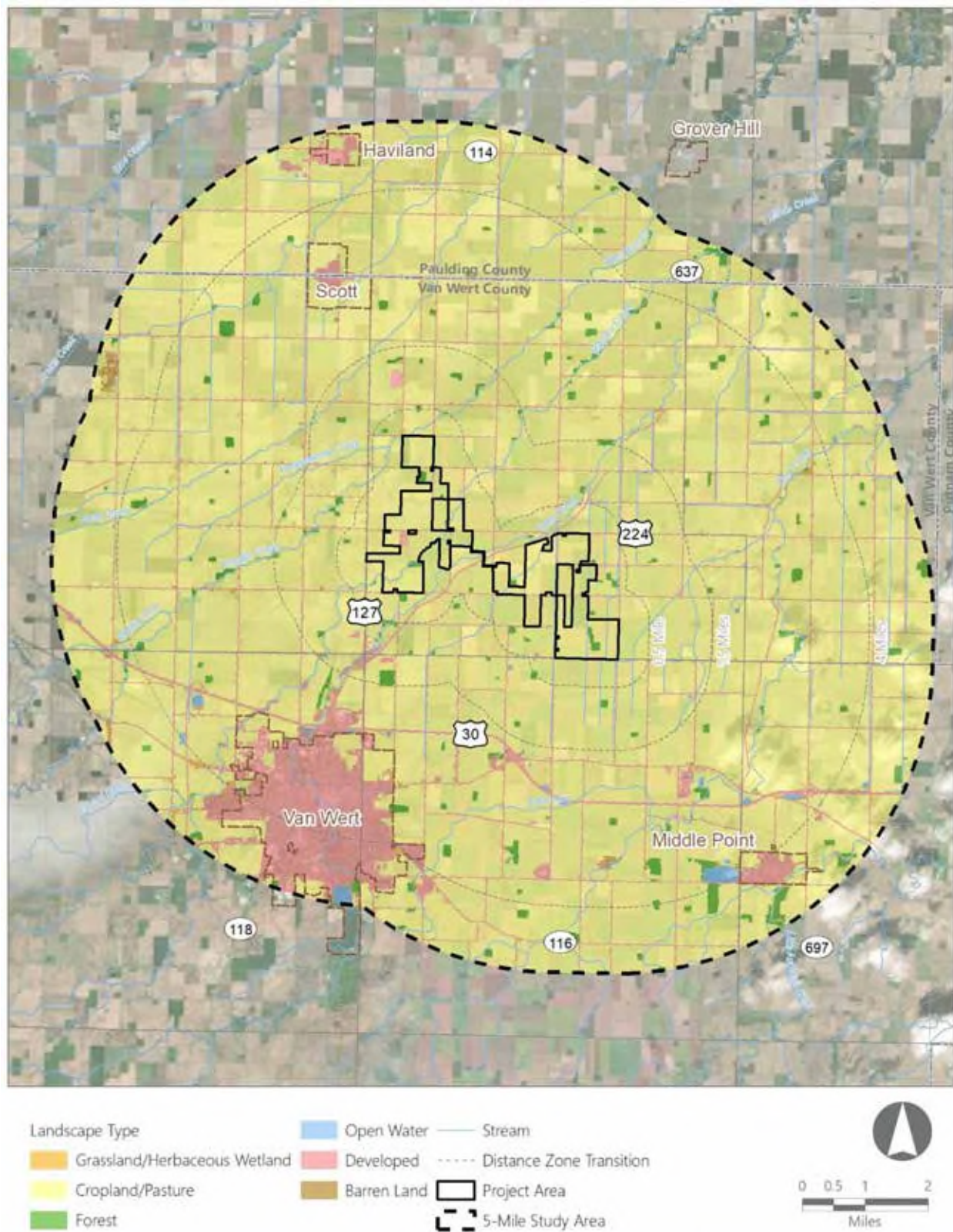
Landscape Type	Total Area within the VSA (square miles)	Percent of VSA
Cropland/Pasture	129.5	87.9%
Developed	14.4	9.8%
Forest	2.3	1.6%
Open Water	0.5	0.3%
Grassland/Herbaceous Wetland	0.4	0.3%
Barren Land	0.2	0.1%
Total	147.3	100%

The Project components are proposed to be built almost entirely within the Cropland/Pasture LT, which makes up approximately 87.9% of the VSA. Agricultural land within the VSA typically offers the greatest potential for long-distance views due to the presence of open fields and minimal screening features. As such, the Cropland/Pasture LT is likely to have the greatest opportunities for views of the Project. Though there are numerous streams located within the VSA, the streams are typically surrounded by cropland and too narrow to register as a separate LT (i.e., they are included as part of the Cropland/Pasture LT).

The Developed LT makes up 9.8% of the VSA and consists of areas of concentrated human settlement/development, including the City of Van Wert and the Villages of Middle Point, Scott, and Haviland. Developed LT areas may have outward views across landscaped yards, parking lots, recreational fields, and planted vegetation, but such views are often limited due to the presence of street/yard trees, closely situated buildings, utility poles, or other built features. It should be noted that the NLCD identifies all paved roads as "developed." While these roads are technically developed from the standpoint of cover type, they often occur in other landscapes (e.g., open agricultural land) and therefore are not consistent with the visual character of Developed LT as defined in this VRA. As such, the Developed LT area within the VSA is over inclusive and may slightly overstate the presence of developed land within the VSA.

There are two wind energy generating facilities within the VSA. The Blue Creek Wind Farm partially overlaps the Wild Grains Project Area and extends to the northwest of the Project Area. The Cooper Farms Wind Farm is located just south of the Project Area. The wind turbine generators are concentrated in the northwest quadrant of the VSA. Approximately five wind turbine generators are located within the Project Area. They are displayed as part of the Developed LT on the map in Figure 1.4; however, they are difficult to identify given the scale of the map, and like roads, occur primarily within an agricultural landscape.

The Forest LT, which makes up 1.6% of the VSA, occurs in small distinct locations (i.e., woodlots) throughout the VSA. Less than one percent of the VSA is comprised of the Open Water, Grassland/Herbaceous Wetland, and Barren Land LTs.

Figure 1.4. Landscape Types Within the Visual Study Area

1.2.3 Distance Zones

Distance zones are typically defined in visual studies to divide the VSA into distinct sub-areas based on the various levels of landscape detail that can be perceived by a viewer. Four distinct distance zones were defined within the VSA. To define these zones, EDR consulted several well-established agency protocols, including those published by the U.S. Forest Service (USFS), Bureau of Land Management (BLM), and U.S. Department of Transportation (USDOT), to determine the appropriate extent of each distance zone. It is important to note that the distance zones recommended by each of these protocols were considered in the context of this VSA. For example, the BLM recommends a combined foreground-middle ground zone extending from 0 to 5.0 miles. While this may be appropriate in a western landscape with frequent, unscreened views over very long distances, it does not translate to eastern landscapes where views are often contained within 1.0 mile of the viewer. Conversely, the USFS (1995) suggests the foreground be defined as an area extending 0.5 mile from the viewer. Due to the characteristics of the specific landscape being evaluated in this VRA, EDR defined distance zones within the VSA (as measured from the proposed Project) as follows:

- **Near-Foreground:** 0 to 0.5 mile. At this distance, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.
- **Foreground:** 0.5 to 1.5 miles. At this distance, elements in the landscape tend to retain visual prominence, but detailed textures become less distinct. Larger scale landscape elements remain as a series of recognizable and distinguishable landscape patterns, colors, and textures.
- **Middle ground:** 1.5 to 4.0 miles. The middle ground is usually the predominant distance at which landscapes are seen. At these distances, a viewer can perceive individual structures and trees but not in great detail. This is the zone where the parts of the landscape start to join together; individual hills become a range, individual trees merge into a forest, and buildings appear as simple geometric forms. Colors will be distinguishable but subdued by a bluish cast and softer tones than those in the foreground. Contrast in texture between landscape elements will also be reduced.
- **Background:** Over 4.0 miles. The background defines the broader regional landscape within which a view occurs. Within this distance zone, the landscape is simplified; only broad landforms are discernable, and atmospheric conditions often render the landscape an overall bluish color. Texture has generally disappeared, and color has flattened, but large patterns of vegetation are discernable. Silhouettes of one land mass set against another and/or the skyline are often the dominant visual characteristics in the background. The background contributes to scenic quality by providing a softened backdrop for foreground and middle ground features, an attractive vista, or a distant focal point.

The area of each LT falling within each distance zone in the VSA is summarized in Table 1.2. As shown in this table, the distribution of LTs within the individual distance zones is relatively uniform. The Cropland/Pasture LT makes up between 85.4% and 92.7% of each of the distance zones. Also, of note, the Developed LT, where the majority of residents and VSRs occur, makes up approximately 6% of the Near-

Foreground and Foreground distance zones. Between 10.4% and approximately 12% of the Middle Ground and Background distance zones consist of the Developed LT, reflecting the occurrence of the City of Van Wert and the Villages of Middle Point, Scott, and Haviland within these distance zones. Although the Middle Ground and Background distance zones contain a higher percentage of developed land, potential visibility of the Facility is greatly diminished at these distances.

Table 1.2. Distance Zones by Landscape Type

Landscape Type	Total Area (square miles) of Landscape Type and Percent of Distance Zone ¹			
	Near-Foreground (0 – 0.5 mile)	Foreground (0.5 – 1.5 miles)	Middle Ground (1.5 – 4.0 miles)	Background (>4.0 miles)
Cropland/Pasture	11.4 (92.2%)	17.8 (92.7%)	64.1 (87.4%)	36.3 (85.4%)
Developed	0.7 (6.1%)	1.1 (5.7%)	7.6 (10.4%)	4.9 (11.6%)
Forest	0.2 (1.6%)	0.3 (1.5%)	1.1 (1.5%)	0.8 (1.8%)
Open Water	<0.1 (<0.1%)	<0.1 (0.1%)	0.3 (0.4%)	0.2 (0.4%)
Grassland/Herbaceous Wetland	<0.1 (0.1%)	<0.1 (0.1%)	0.2 (0.3%)	0.2 (0.5%)
Barren Land	-	-	0.1 (0.1%)	0.1 (0.3%)
Total Distance Zone Area²	12.3	19.2	73.3	42.5

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not add up precisely.

²The VSA includes approximately 147.3 square miles, or approximately 94,261 acres.

1.2.4 Visually Sensitive Resources

VSRs within the VSA were identified per the requirements of OAC 4906-4-08(D). The categories of VSRs that are typically required for consideration in a VRA include the following:

- Properties of Historic Significance:** National Historic Landmarks (NHLs), sites listed on the National Register of Historic Places (NRHP), sites determined eligible for listing on the NRHP, Ohio Historic Inventory (OHI) structures, Ohio Department of Transportation (ODOT) designated historic bridges, Ohio Genealogical Society (OGS) cemeteries, and Ohio historic state markers.
- Designated Scenic Resources:** Rivers designated as national or state wild, scenic, or recreational; sites, areas, lakes, reservoirs or highways designated or eligible for designation as scenic; other designated scenic resources.
- Public Lands and Recreational Resources:** National parks, recreation areas, seashores, and/or forests; national natural landmarks; national wildlife refuges; heritage areas; state parks; state nature preserves or wildlife areas; state forests; state fishing/waterway access sites; other state lands, designated trails; local parks and recreation areas; publicly accessible conservation lands/easements; rivers and streams with public access; named lakes, ponds, and reservoirs.

- **High Use Public Areas:** State, US, and Interstate highways, schools, cities, and villages.

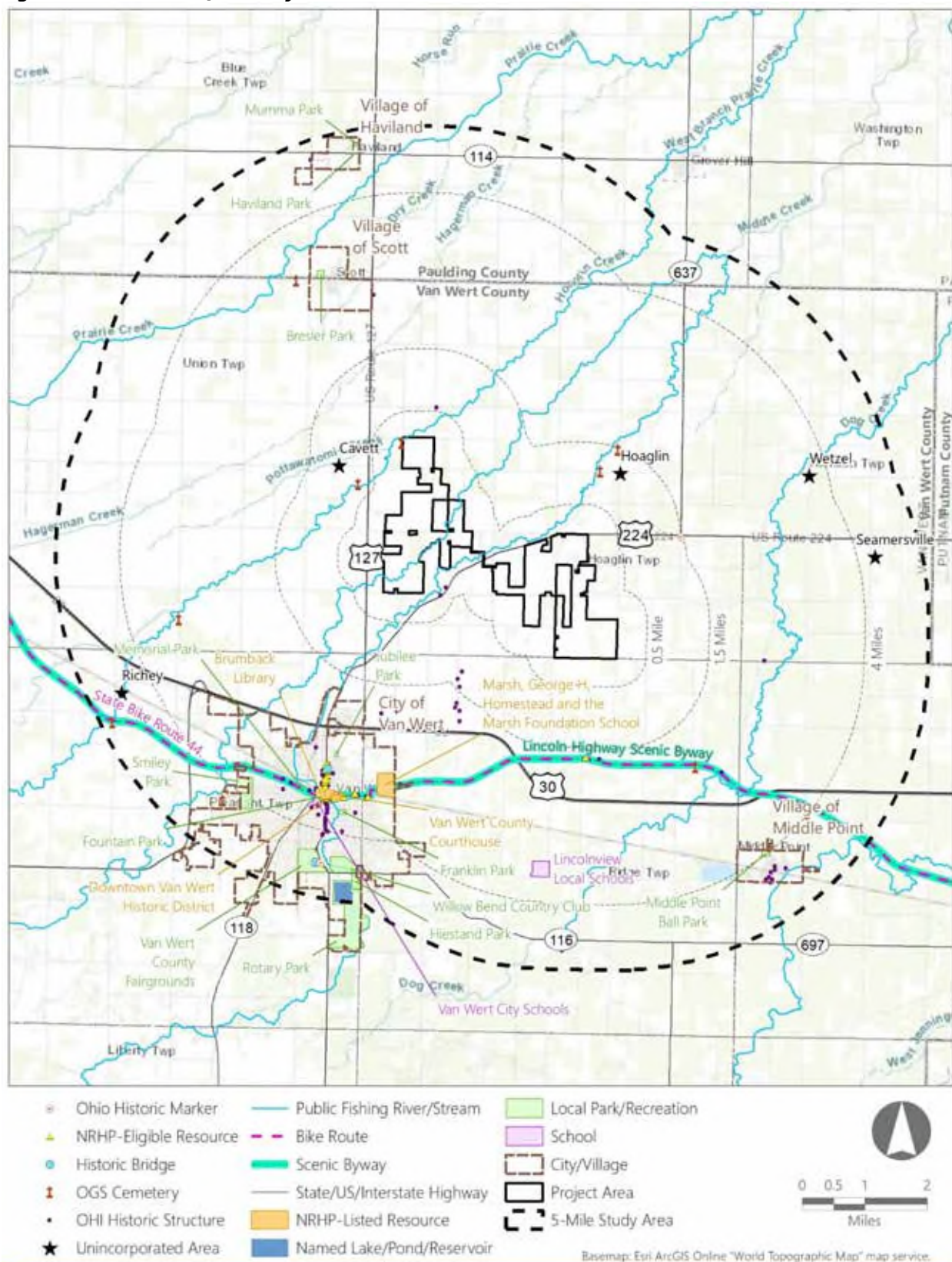
To identify VSRs within the VSA, EDR consulted a variety of data sources including digital geospatial data obtained primarily through the Ohio Geographically Referenced Information Program (OGRIP) or Esri; numerous national, state, county, and local agency/program websites as well as websites specific to identified resources; and web mapping services such as Google Maps. Table 1.3 provides a count of the various types of VSRs identified within the 5-mile radius VSA.

Table 1.3. Visually Sensitive Resources

Type of Visually Sensitive Resource	Number Identified within the VSA
Properties of Historic Significance	196
Designated Scenic Resources	1
Public Lands and Recreational Resources	21
High Use Public Areas	19
Total	237

The locations of mapped VSRs within the VSA are illustrated in Figure 1.5, and presented at a larger scale in Appendix B. Additional information regarding the specific VSRs included in the VSA, and potential Project visibility from these VSRs, is included in Section 2.1.3 and Appendix E.

Figure 1.5. Location of Visually Sensitive Resources



Documented Visual Resources and Preferences of the Community

EDR also reviewed existing plans, policies, and regulations of the various communities within the VSA to identify any document visual resources or visual preferences of the community. Paulding County is the only community within the VSA with a documented land use plan.

The 2018 *Paulding County Community Development Plan* “envision[s] being a community which has: a thriving economy; a safe, reliable and efficient transportation network; abundant natural, historic, and rural assets; active and vibrant downtown areas; an environment that supports healthy lifestyles; and exceptional quality of life for all residents.” (Paulding County Vision Board, 2018, p. 5). The plan aims to enhance recreational, cultural, and historic assets and beautification efforts; however, the plan does not discuss scenic resources or visual preferences within the community. The Project is not located in Paulding County and only a small portion of the county is located within the northern part of the VSA (within the middle ground and background). The Project is not expected to have an adverse effect on the goals listed in the Community Development Plan.

2.0 VISUAL RESOURCE ASSESSMENT

The specific techniques used to assess potential Project visibility and visual effects, along with the results of those assessments, are described below.

2.1 Potential Project Visibility

2.1.1 Viewshed Methodology

PV Panel Viewshed Analysis

To identify areas where views of the proposed PV panel arrays (including PV panels and inverters) would potentially be available, a digital surface model (DSM) viewshed analysis, which considers the screening effects of existing topography, structures, and vegetation, was conducted. A viewshed analysis based on topography alone is not provided because the results of such an analysis do not accurately represent conditions within the VSA. Because it accounts for the screening provided by topography, vegetation and structures, the DSM viewshed analysis is a more accurate representation of potential Project visibility¹. The DSM viewshed analysis for the proposed PV arrays was prepared using: 1) a DSM derived from the Ohio Statewide Imagery Program's (OSIP) 2006 lidar data for the Counties of Van Wert, Paulding, and Putnam, Ohio; 2) sample points to represent solar panel locations placed 300 feet apart in a grid pattern throughout all proposed PV panel arrays; 3) an assumed maximum solar panel height of 12 feet applied to each sample point; 4) an assumed viewer height of 6 feet; and 5) Esri ArcGIS® software with the Spatial Analyst extension.

A few modifications were made to the lidar-derived DSM prior to analysis. Transmission lines and road-side utility lines that are reflected in the lidar data are mis-represented in the DSM as opaque screening features. In order to correct this inaccuracy, DSM elevation values within transmission line corridors and within 50 feet of road centerlines were replaced with bare earth elevation values. It is important to note that this clearing of the DSM may also eliminate legitimate screening features such as road-side vegetation and structures, which may result in an overstatement of potential Project visibility along road corridors within the VSA. Additionally, all areas within the PV array fence lines were set at bare earth elevations to reflect proposed vegetation clearing within these locations. This modified DSM was then used as a base layer for the viewshed analysis. Once the viewshed analysis was completed, a conditional statement was used within ArcGIS® to set solar panel visibility to zero in locations where the DSM elevation exceeded the bare earth elevation by 6 feet or more, indicating the presence of vegetation or structures that exceed viewer height. This was done for two reasons: 1) in locations where trees or structures are present in the DSM, the viewshed would reflect visibility from the vantage point of standing on the treetop or building roof, which is not the

¹ Because certain characteristics of the Project and the VSA that may serve to restrict visibility (e.g., color, atmospheric/weather conditions, and distance from viewer) are not taken into consideration in the analysis, being located within the DSM viewshed does not necessarily equate to actual Project visibility, nor does it indicate that adverse visual impacts will occur within these geographic locations.

intent of this analysis, and 2) to reflect the fact that ground-level vantage points within buildings or areas of vegetation exceeding 6 feet in height will generally be screened from views of the Project.

Collection Substation Viewshed Analysis

A DSM viewshed analysis was also conducted for the proposed collection substation. Because precise locations of the interior components of the collection substation are not known at this time, the analysis was run based on five representative points within the proposed footprint. These points were assigned a height of 65 feet to represent the maximum proposed height of the tallest interior components, which are the lightning masts. All other data sources and assumptions used in the above-ground electrical component viewshed analysis are as described above for the PV panel viewshed analysis.

2.1.2 Viewshed Results

PV Panel Viewshed Analysis

Potential visibility of the proposed PV panels, as indicated by the DSM viewshed analysis, is illustrated in Figures 2.1, 2.2, and 2.3 and summarized in Table 2.1. As indicated by this analysis, the Project will be screened from approximately 46.5% of the VSA by intervening vegetation and structures.

Table 2.1. PV Panel Viewshed Analysis Results Summary

Analysis	VSA (square miles)	Visibility by Distance Zone ¹ (square miles of visibility and percent of distance zone)			
		Near- Foreground 0-0.5 Mile	Foreground 0.5-1.5 Mile	Middle Ground 1.5-4.0 Mile	Background 4.0-5.0 Mile
Total Area	147.3	12.3	19.2	73.3	42.5
DSM Viewshed Visibility	78.8 (53.5%)	11.8 (95.9%)	17.1 (89.5%)	38.2 (52.1%)	11.7 (27.5%)

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not add up precisely.

Figures 2.1 and 2.2 illustrate the results of the DSM viewshed analysis for a 5-mile radius and a 1.5-mile focused radius, respectively. The viewshed maps illustrate how potential views of the Facility will include a smaller portion of the proposed PV panel arrays as one moves farther from the Project. Additionally, Figure 2.3 displays areas within the VSA where very small portions (less than 10% of the viewshed sample points) of the PV panels may be visible.

The near-foreground distance zone has the largest area of potential visibility within the VSA, with 95.9% of the area out to 0.5 mile from the Project Area indicated as having potential views of some portion of the PV arrays. Views from areas in the foreground distance zone (0.5-1.5 miles) experience somewhat more screening due to intervening vegetation and structures, and therefore 89.5% of the foreground distance zone is indicated as having the potential for views of the PV panels. The DSM viewshed analysis indicates that potential Project visibility is further reduced at distances beyond the foreground. Just over half (52.1%) of the VSA is expected to have potential views of the PV panels in the middle ground (at distances between 1.5 and 4 miles). At background distances (between 4 and 5 miles away), the viewshed analysis indicates 27.5% of the VSA is expected to have potential views of the PV Panels.

Within the VSA, scattered segments of vegetation bordering Hoaglin Creek, Maddox Creek, and Town Creek, as well as scattered woodlots and clusters of structures, provide screening in portions of the VSA beyond 1.5 miles from the Project. Dense vegetation surrounding an unpaved road that runs north-south, west of Highway 127, also limits potential PV panel visibility beyond the foreground west of the Project.

Potential views just beyond the foreground, south-southeast of the Project, are also influenced by changes in topography. Along the southern edge County Road 418 (Lincoln Highway) the elevation drops, which screens views to the north across the roadway. Southwest of the Project, potential views are interrupted by development associated with the City of Van Wert. Furthermore, vegetation surrounding Dog Creek significantly filters potential views from the east and southeast in this area.

In the remainder of the VSA (west, northwest, north, northeast, and east) potential views extend to the background. These expansive potential views are largely due to flat topography consisting primarily of open agricultural fields with relatively short vegetation. Though potential views extend to the background, a large majority of the potential views will contain less than 10% of the Facility (see Figure 2.3). Additionally, at these distances (middle ground and background) the PV panels may be difficult to distinguish from other landscape elements and will not likely to be a focal point in available views.

It should be noted that the viewshed analysis treats all structures and vegetation as if they were opaque, and therefore, small woodlots and hedgerows are assumed to fully screen views of the Facility. This will likely be the case during leaf-on conditions; however, during leaf-off conditions, narrow or sparsely vegetated hedgerows and woodlots may not provide enough screening to fully obscure views of the Project. Partial screening will be provided by tree trunks and branches in these locations during leaf-off conditions; therefore, views of the PV panels would be at least partially obstructed. It is also important to note that the lidar data used in this analysis are from 2006, and the analysis does not reflect any changes that may have occurred since that time. However, based on review of recent aerial photography (2018) and field review, the lidar data appear to accurately reflect current vegetative screening conditions within the VSA.

In addition, proposed mitigation plantings will provide additional screening and soften the visible effects of the PV arrays in certain areas within the near foreground and foreground distance zones. These proposed plantings are not accounted for in the viewshed analysis. See Appendix C for more information about proposed landscape mitigation.

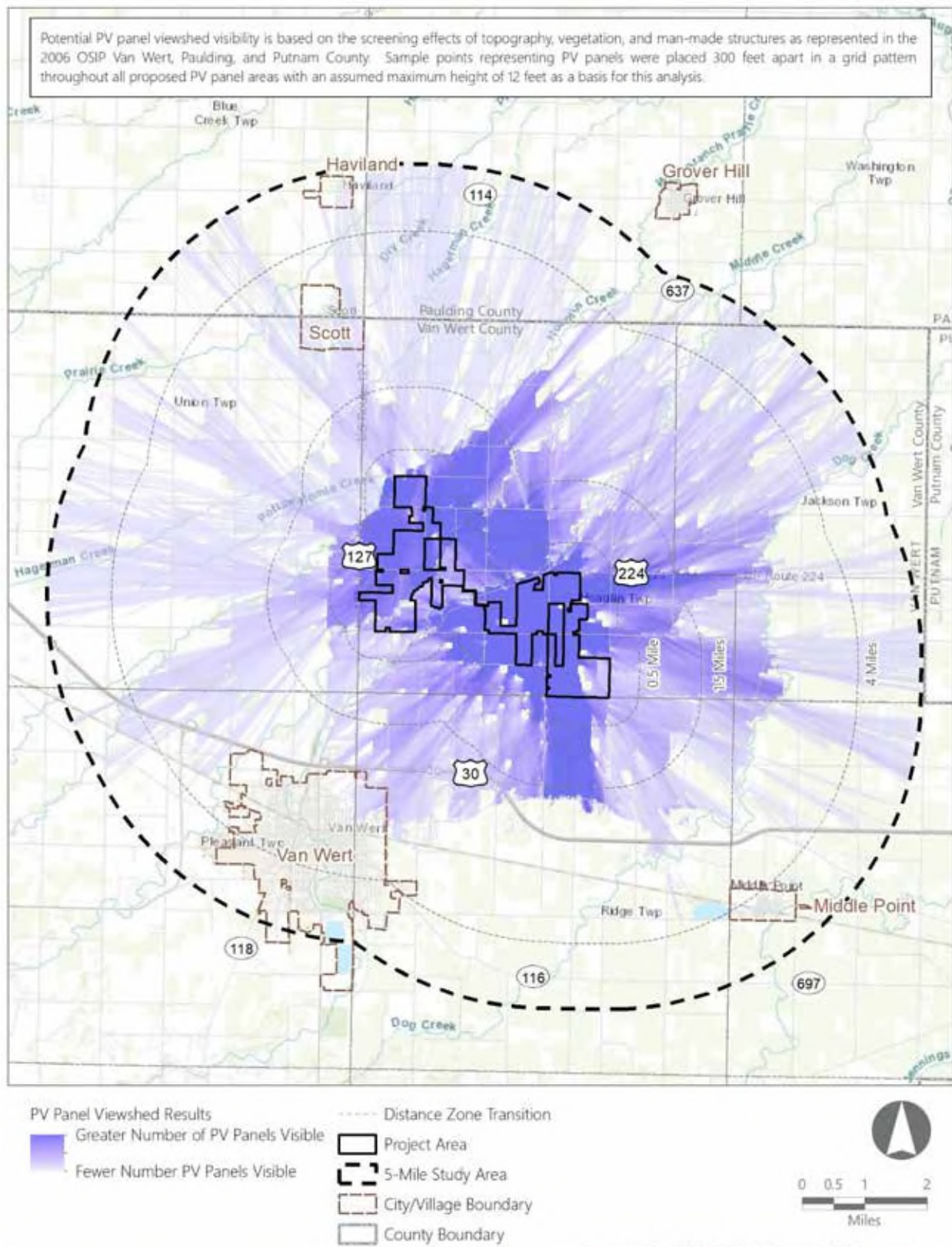
Figure 2.1. PV Panel Viewshed Analysis Results Within the VSA

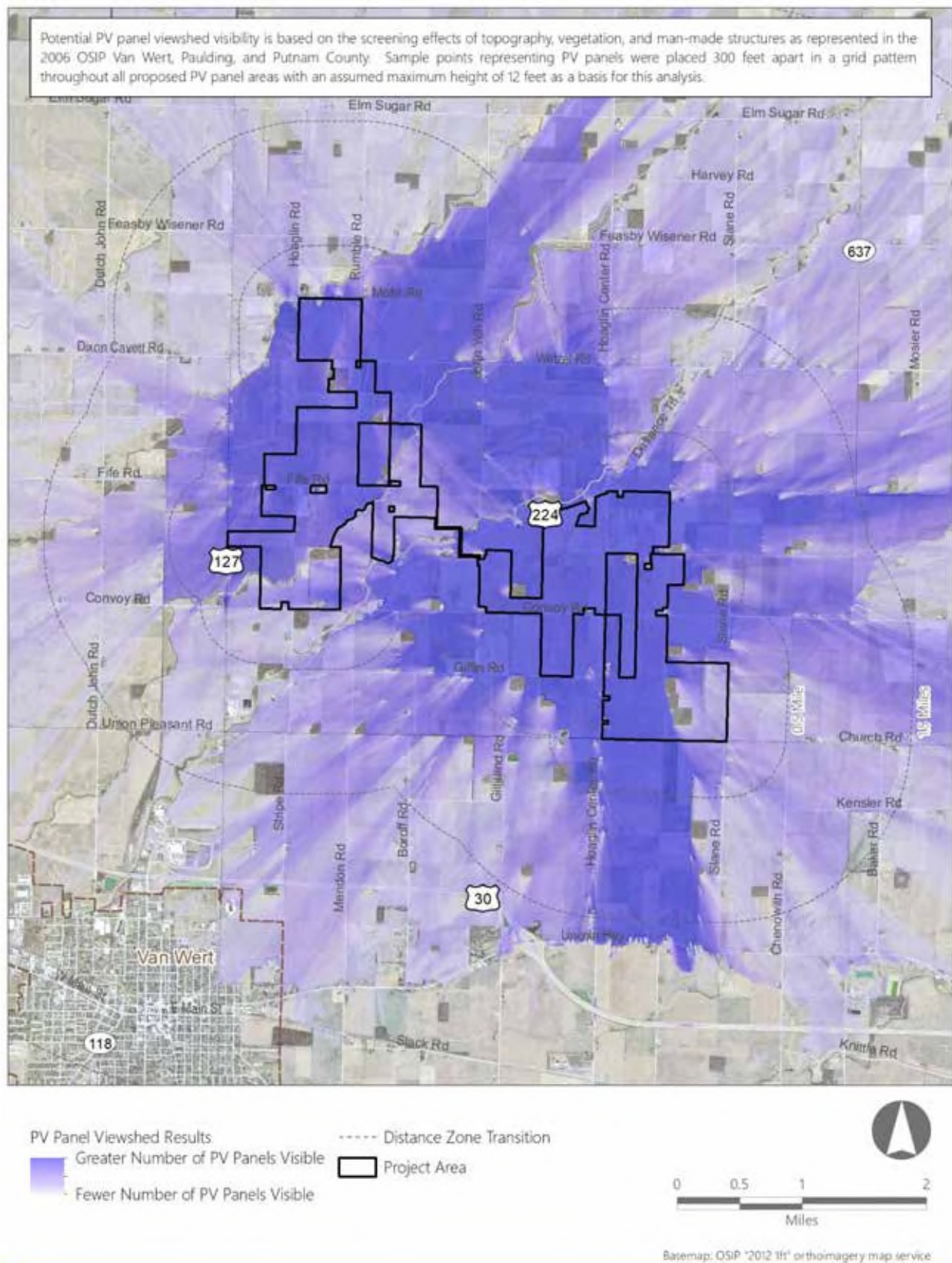
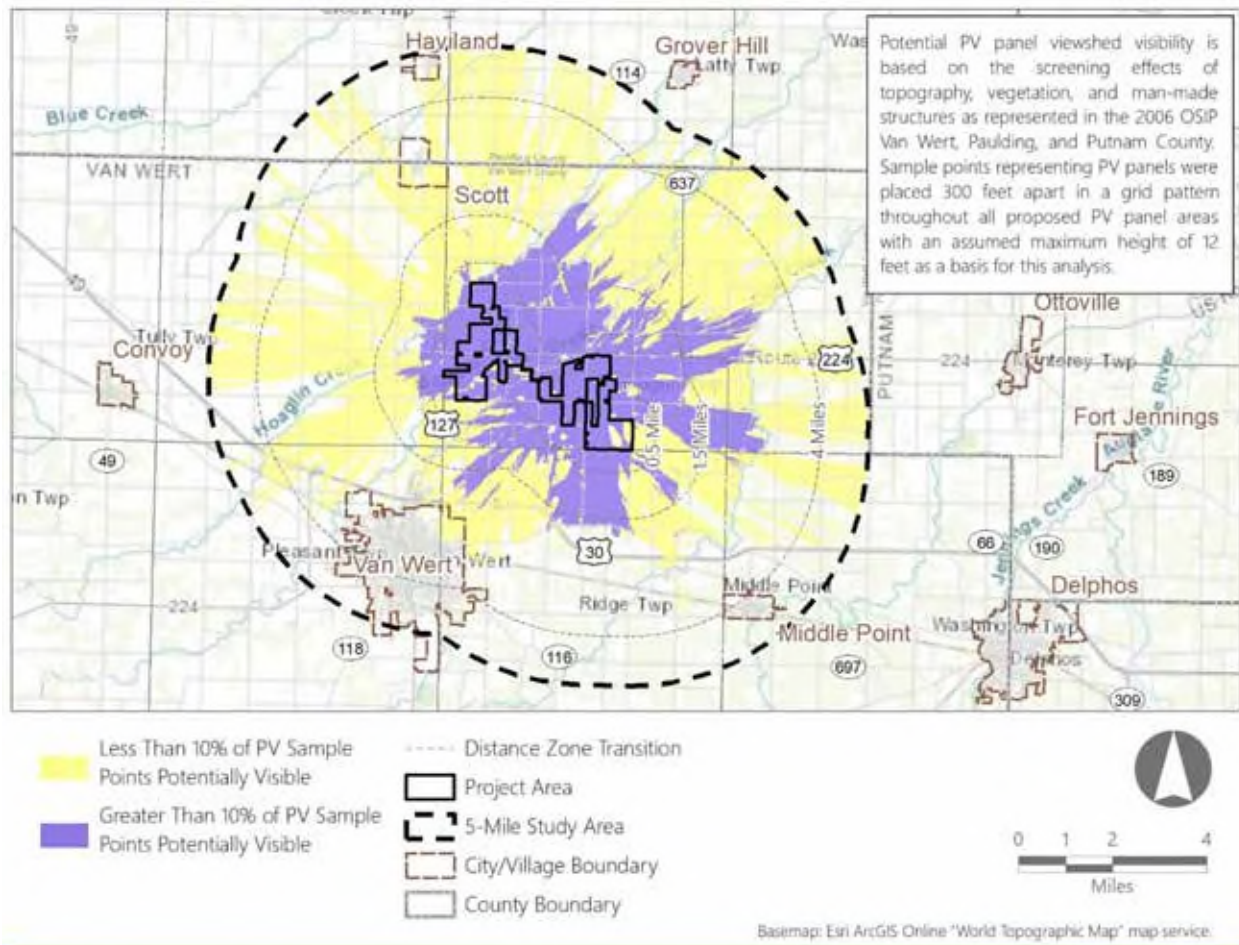
Figure 2.2. PV Panel Viewshed Analysis Results Within the Foreground Distance Zone

Figure 2.3. Areas of Less than 10% Potential Visibility of the PV Panel Viewshed Sample Points**Collection Substation Viewshed Analysis**

Potential visibility of the collection substation, as indicated by the DSM viewshed analysis, is illustrated in Figure 2.4 and summarized in Table 2.2. As indicated by this analysis, this Project component will be screened from approximately 75.5% of the VSA by intervening vegetation and structures.

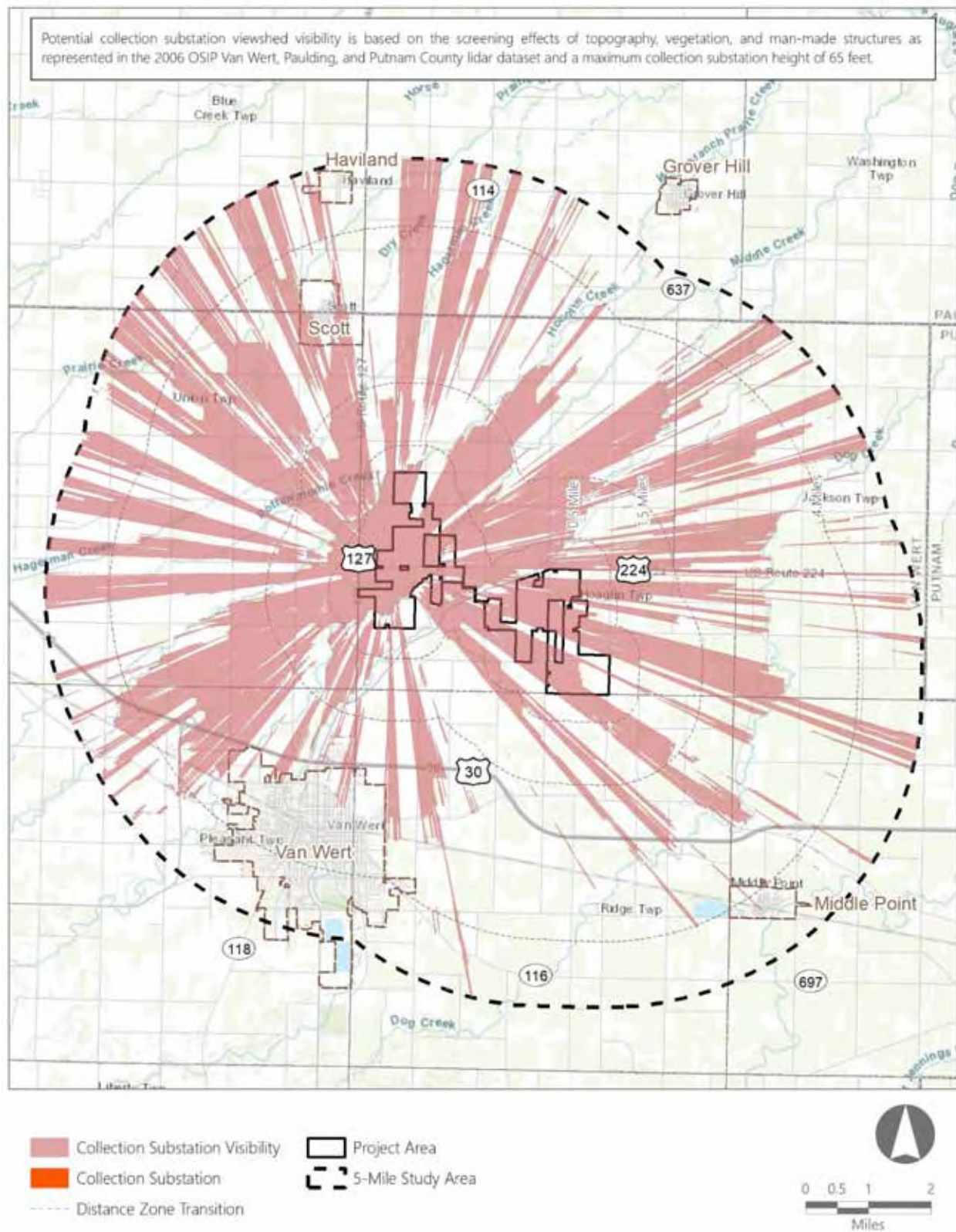
Table 2.2. Collection Substation Viewshed Analysis Results

Analysis	VSA (square miles)	Visibility by Distance Zone (square miles of visibility and percent of distance zone)			
		Near- Foreground 0-0.5 Mile	Foreground 0.5-1.5 Miles	Middle Ground 1.5-4.0 Miles	Background 4.0-5.0 Miles
Total Area	147.3	12.3	19.2	73.3	42.5
DSM Viewshed Visibility	36.1 (24.5%)	7.3 (59.0%)	7.2 (37.8%)	16.7 (22.8%)	4.9 (11.6%)

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not precisely reconcile.

The potential area of visibility for the collection substation covers a significantly smaller area (24.5%) than for the PV panels (53.5%). This is likely due to the smaller geographic extent of these components (i.e., smaller “footprint” that includes fewer sample points). Corridors of vegetation along Hoaglin Creek, Maddox Creek, and Town Creek, along with scattered woodlots and clusters of structures limit potential substation visibility beyond 1.5 miles. However, wide corridors of potential substation visibility extend out to 5 miles throughout the VSA. Potential views to the east and southeast are screened by vegetation surrounding Dog Creek, and to the south due to development associated with the City of Van Wert.

It is important to keep in mind that the substation viewshed analysis presents theoretical visibility. It ignores the narrow profile and neutral color of the lightning masts, is based on a lightning mast height that is significantly taller than most of the internal substation structures and does not consider the existing visibility of the neighboring switching station. The narrow lightning masts will be difficult to discern at distances beyond the foreground, and the remaining interior structures will generally be screened by intervening vegetation and structures at viewpoints outside the near foreground distance zone.

Figure 2.4. Collection Substation Viewshed Analysis Results Within the VSA

Basemap: Esri ArcGIS Online "World Topographic Map" map service.

2.1.3 Visibility Results from Visually Sensitive Resources

The DSM viewshed analysis suggests that 38 of the 237 VSRs identified within the VSA (16%) may have views of both the PV panels and the above-ground electrical components of the Project. An additional 18 of these resources (8%) may have views of only the PV panels. No VSRs are indicated as having above-ground electrical component visibility only (see Table 2.3).

Table 2.3. Visually Sensitive Resources with Potential Project Visibility

Visually Sensitive Resources	Total Number of Resources within the VSA	Total Resources with Project Visibility ¹		
		Both PV Panels and Collection Substation Visible	Only PV Panels Visible	Only Collection Substation Visible
Properties of Historic Significance	196	15	15	-
Sites Listed on National Register of Historic Places (NRHP)	4	1	-	-
Sites Eligible for Listing on NRHP or SRHP	27	-	1	-
Ohio Historic Structures	150	7	11	-
Historic Bridges	2	-	-	-
OGS Cemeteries	10	6	3	-
Ohio Historical Marker	3	1	-	-
Designated Scenic Resources	1	1	-	-
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for Designation as Scenic	1	1	-	-
Public Lands and Recreational Resources	21	7	3	-
Trails	1	1	-	-
Local Parks and Recreation Areas	13	1	3	-
Rivers and Streams with Public Access	6	5	-	-
Named Lakes, Ponds, and Reservoirs	1	-	-	-
High-Use Public Areas	19	15	-	-
State, US, and Interstate Highways	8	6	-	-
Schools	2	-	-	-
Cities, Villages, Unincorporated Areas	9	9	-	-
Total Number of Visually Sensitive Resources	237	38	18	-

¹See Appendix E for additional detail on VSR visibility.

The following section describes the individual VSRs with potential Project visibility, their distance from the Project, and potential views of the proposed PV panels and/or above-ground electrical components based on the DSM viewshed results. As mentioned previously, in certain areas within the near foreground and foreground distance zones, proposed mitigation plantings will provide screening and soften the visible effects of the PV arrays. These proposed plantings are not considered in the viewshed analysis. See

Appendix C for more information about proposed landscape mitigation, and the visual simulations in Appendix D to see the visual effect of these plantings.

Properties of Historic Significance

Sites Listed on National or State Registers of Historic Places

The George H. Marsh Homestead and Marsh Foundation School within the middle ground distance zone, approximately 2.9 miles southwest from the nearest PV panel array, could have potential visibility of the PV panels and the proposed above-ground electrical components. Open fields present within the northern portions of these resources are indicated as having limited potential for views of the Project. However, distance, intervening wood lots, and visual distractions along both local roads and US Route 30 will obstruct most outward views.

Sites Eligible for listing on National or State Registers of Historic Places

The Morris Garmin House is located on Ridge Road, within the middle ground distance zone approximately 1.6 miles south of the nearest PV panels. This resource has potential visibility of the PV panels across open agricultural fields to the north. However, the intervening distance will soften views of the Project.

OHI Structures

Of the 150 OHI structures within the VSA, seven are indicated as having potential views of both the PV panels and above-ground electrical components and 11 are indicated as having potential visibility of the PV panels only. Overall, OHI structures in total represent 32% of the VSRs within the Project viewshed. The George Carlo Bank Barn, indicated as having views of both PV panels and above-ground electrical components, and the Hattery School, indicated as having views of the PV panels only, are located in the near foreground distance zone, 0.3 mile south of the nearest PV panel array. However, field survey conducted by EDR as part of the Historic Resources Survey conducted for the Project revealed that these resource are no longer extant.

Four OHI Structures are located within the foreground distance zone. The Grand Victory Church, indicated as having views of both PV panels and above-ground electrical components, is approximately 0.5 mile north of the nearest PV panels. While this resource may have views of the Project, they will be largely obscured by the tree-lined banks of Hoaglin Creek located between the resource and the Project. The House at 7253 Borroff Road is indicated as having a view of the PV panels, the nearest of which are approximately 1.2 miles to the north. However, field survey conducted by EDR as part of the Historic Resources Survey conducted for the Project revealed that this resource is no longer extant. The House at Borroff Road and the House at 7374 Borroff Road, are both indicated as having views of only the PV panels, the nearest of which are located approximately 1.4 miles to the northeast. Views from these resources will be across open agricultural fields, but existing residential development, tree lines, and wood lots, along with the effects of distance, will obscure the Project.

Eleven OHI Structures with potential Project visibility are located within the middle ground distance zone. One of these resources Morris Garman House is described above under the discussion of NRHP-eligible properties. Eight of these resources (Morris Garman House, House at 7734 Boroff Road, Ridge Church, Farm at 7824 Boroff Road, Quonset Hut at 7871 Boroff Road, House at 7927 Stripe Road, Marsh Foundation

Trustees House, and the Esther Vorpe House) are located south of the Project from between 1.6 miles and 2.0 miles from the nearest PV panels. Field survey conducted by EDR as part of the Historic Resources Survey conducted for the Project revealed that the Marsh Foundation Trustees House is no longer extant. Two of these OHI Structures (Grace United Methodist Church and John Wright House) are located to the east of the Project 2.4 and 2.5 miles from the nearest PV panels, respectively. The remaining resource, the Helen & Catherine Lindsay House is located to the north of the Project 2.4 miles north of the nearest PV panels. These resources may have limited Project visibility across open agricultural fields, but due to distance, as well as screening provided by intervening vegetation and development, views of the Project will be softened, and portions likely obscured from these resources.

One OHI Structure, the Alfred & Henry Sherer House, indicated as having potential views of the PV panels is located within the background distance zone, approximately 4.8 miles northwest from the nearest PV panel array. While this resource may have a limited pocket of Project visibility, due to distance, as well as screening provided by intervening vegetation and development, the Project will likely be obscured and difficult to perceive.

OGS Cemeteries

Of the 10 OGS Cemeteries occurring within the VSA, nine are indicated as having potential Project visibility. One cemetery, the Grand Victory – Mohr Cemetery is located in the near foreground distance zone, adjacent to the Project, on the west side of Hoaglin Road. There will be open views of the Project from the cemetery across Hoaglin Road.

Three OGS Cemeteries are located within the foreground distance zone. The Taylor Cemetery is approximately 0.7 mile west of the nearest PV panels and there is the potential for limited Project visibility from within the cemetery. However, the tree-lined banks of Hoaglin Creek are located between the resource and the Project and may obscure views of the PV panels. In addition, visual clutter along US Highway 127 and the existing Blue Creek Wind Farm may serve as distractions that draw viewer attention away from the Project. The Dunkard/Duncard Cemetery is approximately 1.0 mile northeast and the Mount Pleasant Cemetery is approximately 1.4 miles northeast of the nearest PV panels. Both of these sites are indicated as having some degree of Project visibility. However, residential development, tree lines, wood lots, and vegetation along Town Creek will likely obscure views of the Project from these cemeteries.

There are an additional three cemeteries with potential Project visibility located within the middle ground distance zone. Ridge-Ridge Township Cemetery is located approximately 2.2 miles southeast of the nearest PV panel array, while Scott-(Oakland) Cemetery is approximately 3.1 miles to the northwest, and McClure-Dowler Cemetery (which is indicated as having potential views of both the PV panels and the above-ground electrical components) is approximately 3.2 miles to the southwest of the nearest panel arrays. These cemeteries may have limited pockets of Project visibility, but due to distance, as well as screening provided by intervening vegetation and development, the Project will be mostly obscured and difficult to perceive from within these sites.

Two cemeteries with potential Project visibility are located within the background distance zone. The Kings-(King) Cemetery, indicated as having views of both PV panels and above-ground electrical components, is

located approximately 4.1 miles southeast of the nearest PV panels and the Dix Cemetery is located approximately 4.9 miles southwest of the nearest PV panels. Both of these cemeteries are indicated as having limited pockets of Project visibility, but due to distance as well as substantial screening provided by vegetation and intervening development (including US Highway 30), the Project will likely be difficult to discern from within the cemeteries.

Ohio Historical Markers

One historical marker, 2-81 "The Killing Spree Ends Here in 1948" is located in the foreground distance zone, approximately 1.5 miles east of the nearest PV panels. While the historical marker is indicated as having visibility of the PV panels and above-ground electrical components across open agricultural fields, existing visual clutter, including a large electrical transmission line and residential development along US Highway 224, will distract viewer attention from the Project.

Designated Scenic Resources

Sites, Areas, Lakes, Reservoirs or Highways Designated as Scenic

The Lincoln Highway Scenic Byway, the nearest portions of which fall within the middle ground distance zone approximately 1.6 miles south from the nearest PV panel array, could have potential visibility of the PV panels and the proposed above-ground electrical components. Potential Project visibility along the scenic byway will vary based on proximity to the Project, elevation, and roadway orientation. Potential views of the Project will be available along the scenic byway to the southwest of the Project with views across open agricultural fields. While portions of the Project may be visible these views will be softened by the effects distance and existing vegetation screening.

Public Lands and Recreational Resources

Bike Trails/Routes

State Bike Route 44 follows the Lincoln Highway Scenic Byway in the vicinity of the Project. Potential views of the Project are as described above for this resource.

Local Parks and Recreation Areas

Of the 13 parks and recreation areas occurring within the VSA, only four are indicated as having potential views of the PV panels and/or above-ground electrical components. Jubilee Park, which is indicated as having limited views of both PV panels and the above-ground electrical components, is located within the middle ground distance zone approximately 2.7 miles northeast of the nearest PV panel array. Jubilee Park is located within the northeast portion of the City of Van Wert and while the viewshed indicates that there may be views of the Project from the northeast portion of the park, intervening development, including a substation, US Highway 30, and residential and commercial buildings will likely obscure views of the Project from within the park. Bresler Park, also located within the middle ground zone, is located approximately 3.0 miles northwest of the nearest PV panels. The park is situated in the northwest portion in the Village of Scott, and is indicated as having limited views of the PV Panels. However, substantial residential development within the Village of Scott will largely obscure views of the Project from the park.

The remaining two parks, Haviland Park and Mumma Park, located within the background distance zone (approximately 4.7 and 4.9 miles from the nearest PV panels, respectively), are indicated as having limited views of only the PV panels. Both parks are in the Village of Haviland, with Haviland Park located in the southern portion and Mumma Park located in the northern portion of the village. In addition to intervening residential development and visual distractions presented by existing utilities, the distance from the parks to the Project will make discerning the PV panels difficult.

Rivers and Streams with Public Fishing Access

Three creeks run within the near foreground distance zone and are indicated as having visibility of both the PV panel arrays and above-ground electrical components. Portions of Maddox Creek and Town Creek traverse the Project Area, while Hoaglin Creek runs 0.1 mile from the nearest PV panel array at its closest point. Within the VSA, the creeks run from the southwest to the northeast and are typically surrounded by tree-lined banks. Views of the Project from the creeks will likely be limited to areas where there are no trees along the banks and the creeks are adjacent to PV panels and/or above-ground electrical components.

Two other creeks, Dog Creek and Prairie Creek, are indicated as having potential views of both the PV panel arrays and the above-ground electrical components within the middle ground distance zone, approximately 2.4 and 3.2 miles from the nearest PV panels, respectively. Within the VSA, Dog Creek flows southeast and east of the Project, while only a small portion of Prairie Creek traverses the VSA to the southeast of the Project (on the south side of the Village of Middle Point). The creeks are also characterized by tree-lined banks, and at this distance, existing vegetation and development will likely obscure views of the Project from the creeks.

High-Use Public Areas

State, US, and Interstate Highways

Project visibility from roadways within the VSA varies considerably based on proximity to the Project, elevation, and roadway orientation. U.S. and state highways that have potential PV panel and/or above-ground electrical component visibility and their length and usage within the VSA are listed in Table 2.4, below.

Table 2.4. High-Use Roadways within the VSA

Road/Highway	Average Vehicles/Day Range on Segments within the VSA ¹	Total Length within the VSA (miles)	Length (miles) and Percent within the PV Panel Viewshed	Length (miles) and Percent within the Substation Viewshed
State Rte 114	782 – 1,337	4.7	2.3 (49.4%)	0.9 (19.5%)
State Rte 116	467 – 4,673	6.3	<0.1 (<0.1%)	<0.1 (0.5%)
State Rte 118	3,911 – 10,265	1.8	-	-
State Rte 637	1,050 – 1,253	4.8	3.4 (71.9%)	1.2 (24.8%)
State Rte 697	1,209 – 1,209	1.1	-	-
US Hwy 30	12,278 – 16,442	14.5	6.5 (44.9%)	2.7 (18.9%)
US Hwy 127	3,393 – 9,346	12.7	7.4 (58.3%)	3.3 (25.9%)
US Hwy 224	643 – 3,571	12.5	9.9 (79.6%)	6.6 (53%)

¹ Source: Ohio Department of Transportation, 2018

Views of the Project from moving vehicles will generally be fleeting, peripheral to the orientation of the drivers' primary view, and not the primary focus of driver attention.

Cities, Villages, and Unincorporated Areas

One city, three villages, and five unincorporated areas are indicated as having views of both the PV panel arrays and above-ground electrical component associated with the Project. The City of Van Wert is located within the middle ground distance zone, approximately 1.7 miles from the nearest PV panel arrays. Limited views of the Project may be available near the northeast boundary of the city. However, substantial development between the city and the Project, including US Highway 30, will likely obscure any substantial views. The Villages of Scott and Middle Point are also located within the middle ground distance zone, approximately 2.2 and 3.7 miles from the nearest PV panel arrays, respectively. The Village of Scott is located to the northwest of the Project and is indicated as having limited views of the PV panels and above-ground components from its southern and eastern sections. However, the intervening vegetation along Hoaglin and Maddox Creeks, as well as development along US Highway 127 will make it difficult to discern the Project. The Village of Middle Point is indicated as having limited pockets of potential Project visibility. However, distance, combined with intervening development and vegetation (including US Highway 30 and the tree-lined banks of Dog Creek), will make the Project will be difficult to discern without sustained viewer attention.

The Village of Haviland is located within the background distance zone, approximately 4.4 northeast of the nearest PV panel array. Potential views of the PV panels are indicated within an open agricultural field along the southeastern boundary of the village and views of the above-ground electrical components may be present in small pockets in the western portion of the village. Distance, existing visual distractions (including a wind farm and a large electric transmission line), as well as intervening vegetation and development, will effectively obscure views of the Project.

Two unincorporated areas, Cavett and Hoaglin, are located within the foreground distance zone, approximately 0.8 and 1.0 mile from the nearest PV panel arrays, respectively. Cavett is located to the west of the Project and Hoaglin is located to the northeast. Limited Project visibility is indicated along the periphery of the residential areas in Cavett, and within open agricultural fields in Hoaglin. However, existing residential development, including landscaped yards, and tree-lined creek banks (Hoaglin and Town Creeks) will soften views of the Project from within these unincorporated areas.

The unincorporated area of Wetzel is located within the middle ground distance zone, approximately 3.5 miles northeast from the nearest PV panel array, and the unincorporated areas of Seamersville and Richey, are located within the background distance zone, approximately 4.1 miles east and 4.3 miles southwest from the nearest PV panel arrays, respectively. All of these areas are indicated as having very limited pockets of potential Project visibility. Due to distance, road and residential development, existing utility infrastructure, and vegetation, discerning the Project from within these areas will likely be difficult.

2.1.4 Field Verification Methodology

EDR conducted site visits to the VSA on April 27 and May 21, 2021. The purpose of this field review was to verify potential visibility of the Project (as suggested by the viewshed analysis), document the visual character of the various LTs within the VSA, identify the type and extent of existing visual screening, and obtain photographs for subsequent use in the development of visual simulations.

During the site visits, EDR staff members drove public roads, visited public vantage points within the VSA, and obtained photographs from 59 individual viewpoints utilizing a digital SLR camera with a lens setting of 24 and 33 mm (equivalent to settings at 45 and 55 mm on a standard 35 mm full frame camera). Viewpoint locations were recorded using a camera-integrated global positioning system (GPS) unit, and all field notes, GPS points, focal length parameters, times, and dates were documented electronically. Viewpoint locations and representative photographs from each viewpoint are shown in Appendix A.

2.1.5 Field Verification Results

Field verification generally confirmed the results of the viewshed analysis (see the Viewpoint Location Map and Photo Log in Appendix A). Open views of the fields where PV arrays are proposed are most available in areas directly adjacent to the Project where public roads border open agricultural fields. These roads include Mohr Road (Viewpoints 12 and 13), Wetzel Road (Viewpoints 10 and 11), Fife Road (Viewpoints 1, 2, 3, and 4), U.S. Highway 224 (Viewpoints 28 and 29), Convoy Road (Viewpoints 18, 19, 26, 32, and 33), Giffin Road (Viewpoint 36), Church Road (Viewpoint 36), Hoaglin Road (Viewpoints 8 and 9), Rumble Road (Viewpoints 2 and 11), Hattery Road (Viewpoints 22 and 24), John Yoh Road (Viewpoints 24 and 25), Smith-Kitzenbarger Road (Viewpoints 26 and 27), Hoaglin Center Road (Viewpoints 31, 32, 35, and 36), and Slane Road (Viewpoint 34).

Additional areas with potential views occur across open agricultural fields out to 1.5 miles. However, views of the Project from these more distant portions of the VSA potentially will be screened by wooded areas associated with the several meandering streams traversing the Project Area, as well as other scattered woodlots, hedgerows, and structures (refer to Viewpoint 38, by Duncard Cemetery, along Town Creek, with screened views, and Viewpoint 39, from the community of Hoaglin, with more open views).

Field review from middle ground distance zones, beyond 1.5 miles, indicates that potential views of the Project would likely be available from segments of U.S. Highway 30 (Viewpoint 59, south of the Project Area), Dog Crook Road (Viewpoint 43, east of the Project Area), County Road 418 (Viewpoint 46, south of the Project Area), intersection of Wetzel Road and State Highway 637 (Viewpoint 40, east of the Project Area), and Boroff Road (Viewpoint 49, south of the Project Area). Views of the Project potentially could be available from locations such as John Brown Road (Viewpoint 53, west of the Project Area), County Road 12 near Scott (Viewpoint 55, north of the Project Area), and more distant segments of U.S. Highway 30 (Viewpoint 52, southwest of the Project Area). Just beyond 4.0 miles, into the background distance zone, potential visibility could be available from State Highway 144 near Haviland (Viewpoint 56, north of the Project Area). However, based on observations of existing solar facilities with similar topography, while visibility is potentially possible from these more distant locations, the actual ability to discern the Project would be significantly diminished due to factors such as visual acuity, atmospheric perspective, and partial

screening from intervening vegetation and structures. The resulting visibility beyond 1.5 miles would likely only include a small portion of the Project and views of the Project would likely go unnoticed by most casual observers. Field review also indicated that views from the northern border of the City of Van Wert are either unlikely or uncertain, and any potential views would be confined to narrow openings between existing vegetation and structures in the extreme northeastern portion of the city (Viewpoints 47 and 48). Any potential views of the Project from Viewpoint 47 would be across an existing array of solar panels several acres in size.

As noted in Section 2.1.1, the viewshed analysis did not consider potential screening provided by vegetation and structures within 50 feet of road centerlines. As such, the visibility from along roads may be overstated. This was confirmed during field review, which documented numerous areas where roadside trees provide additional screening not considered in the viewshed analysis. During the growing season, visibility of the Project from residences and roadways may also be limited by crop (corn) growth in the foreground agricultural fields. The combination of relatively low panel height, along with existing roadside vegetation and structures, will reduce the extent of Project visibility indicated by the viewshed analysis.

2.2 Visual Simulations

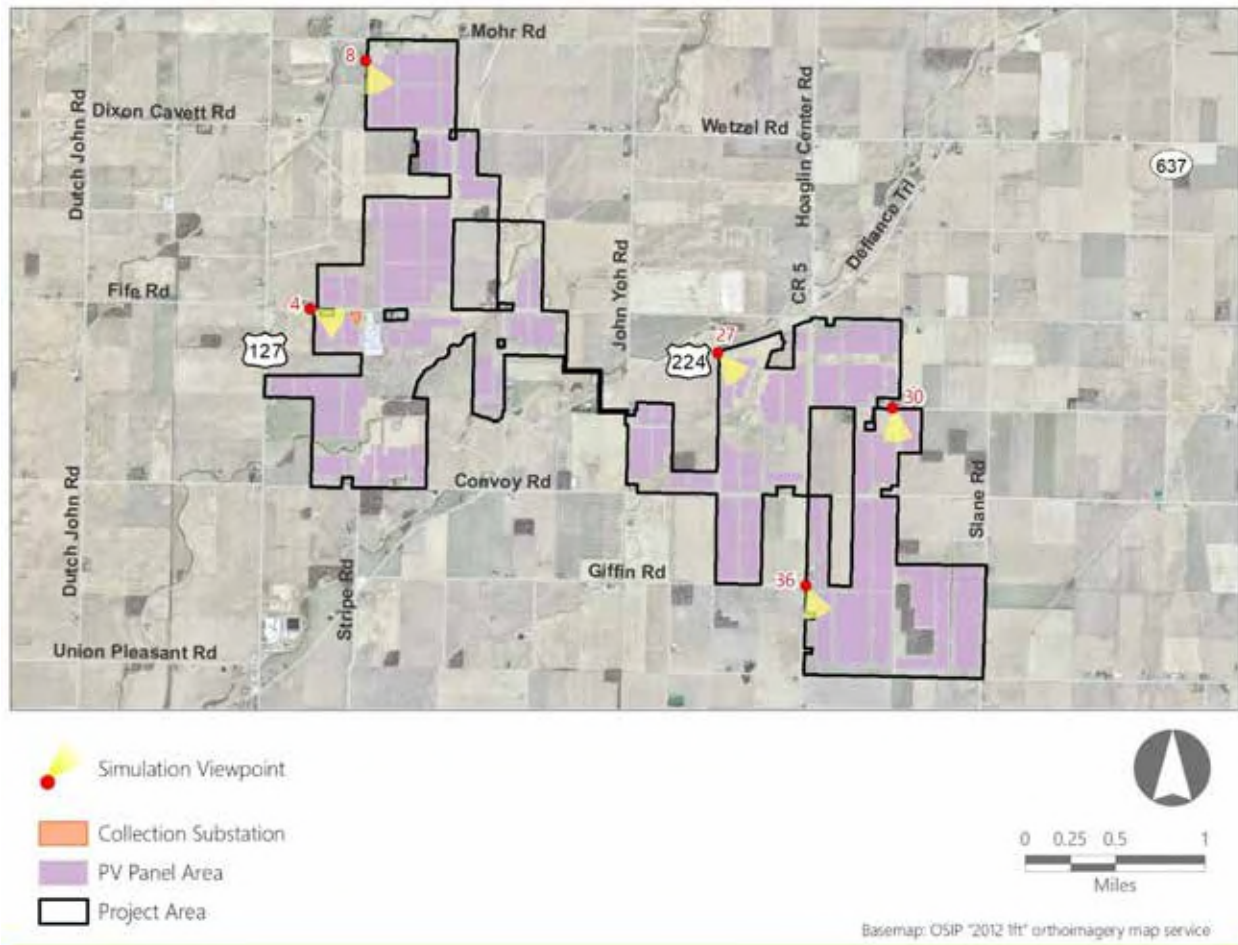
Visual simulations from representative locations were produced to illustrate the appearance of the Project and to evaluate the potential visual impact on existing landscape features and viewers within the VSA.

2.2.1 Viewpoint Selection

Based on the viewshed analysis results and field verification results, a total of five representative viewpoints were selected for the development of visual simulations. Each of the five viewpoints were selected based upon the following criteria:

- They provide open near foreground ("worst case") views of proposed Project components (as indicated by field verification and viewshed analysis).
- They illustrate Project visibility from identified VSRs.
- They illustrate typical views from LTs where views of the Project will be available.
- They illustrate typical views of the proposed Project that will be available to representative viewer/user groups within the VSA, including adjacent residences, travelers, and recreational users.
- They illustrate typical views of different numbers of PV panels, from a variety of directions and lighting/sky conditions, to illustrate a typical range of panel positions and light exposures.
- The selected photos generally displayed good composition, lighting, and exposure.

The location and orientation of the viewpoints selected for the production of visual simulations are illustrated in Figure 2.5.

Figure 2.5 Visual Simulation Location Map

2.2.2 Visual Simulation Methodology

Visual simulations of the proposed Project were developed by constructing a three-dimensional (3D) computer model of the proposed PV arrays and full Project layout based on specifications, dimensions, and locations provided by the Applicant. Next, the camera specifications used to take the selected photograph in the field were replicated in the 3D model. This was accomplished by positioning the 3D camera in the same real-world coordinate system as the Project model using GPS coordinates collected at each photo location. The camera was then aligned, and the camera's target position (view direction) adjusted until the modeled 3D elements aligned exactly with the elements in the photograph. Once this step was complete, the Project was added to the photograph at the correct location, perspective, and scale. At this point, the appropriate sun angle was simulated based on the specific date, time, and location (latitude and longitude) at which the photograph was taken. This information allowed the program to realistically illustrate highlights, shading, and shadows for all Project components shown in the view. All PV panel simulations include single-axis tracker arrays with the panels oriented perpendicular to the sun, on an east-west axis, in north-south aligned arrays.

Visual screening may be implemented in the form of direct payment or reimbursement to affected residences so that they can install their preferred vegetation or other screening, at their choosing. As an alternative, the use of mitigation plantings at select locations along the perimeter of the PV arrays may be used to lessen the visual impact of the Project when viewed from non-participating residences with a direct line of sight of the Facility from near-foreground distances. At viewpoints where mitigation plantings are shown (see Appendix D), vegetative screening is included in the simulations and represented at a height that would be achieved approximately 5-7 years post installation.

2.2.3 Visual Simulation Results

The visual simulations and a discussion of the potential visual effects associated with the Project are summarized below. Full-sized images are presented in Appendix D.

Viewpoint 4 – Fife Road



Inset 2.1. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 4 is located on Fife Road at the western edge of the Project Area, approximately 1,400 feet east of State Highway 127 and approximately 260 feet from the nearest proposed PV panel array. This viewpoint contains existing wind turbines and transmission infrastructure in addition to a residential structure. The existing view to the southeast features a rural road that angles across the view from the near foreground to the background. Wooden electric distribution poles and electric transmission lines follow the right-hand edge of the roadway, and they are crossed in the background by an electric transmission line. A residence bordered by evergreen and deciduous trees is located in the middle ground of the view, to the right of the road. The right side of the view is occupied by a mowed field. Views across the open field are dominated by the presence of several wind turbines, a meteorological tower, an electric transmission tower, and an electric transmission substation. Visible in the distant background, beyond the meteorological tower and the closest wind turbine is a wooded area, associated with a meandering stream. The existing view is of a rural agricultural/energy production landscape that has relatively low scenic quality.

Proposed Project

With the proposed Project in place, the PV panel arrays and fence now occupy the agricultural field in the middle ground of the view. The deciduous tree line running along the far edge of the field in the distant

background is no longer visible. Additionally, only the taller structures of the existing electric transmission substation remain in view. The existing house and wooded yard, powerlines, and transmission lines are still visible on the left side of the view. The PV panel arrays and bordering fence become significant features in the view due to their proximity to the viewer and lack of screening. With the Project in place the character of the view is more enclosed due to the proximity of the panels and screening of background features. The continued presence of the large trees, rural road, and open field edge helps to maintain some of the rural character, but the presence of the panels reinforces the perceived energy production land use, particularly when combined with the existing wind turbines, transmission lines, and towers.



Inset 2.2. Left: Visual Simulation. Right: Visual Simulation with Mitigation (5-7 years)

Proposed Project with Mitigation

With the mitigation plantings in place, and after 5-7 years of growth, the proposed PV panel arrays and perimeter fencing are still visible in the middle ground, but their prominence is diminished, and they are no longer the dominant features in the view. The proposed plantings break up the expanse of the PV panel arrays and soften the hard lines and color contrast presented by the Project. The plantings mimic the character of existing woodlots and hedgerows with a mix of herbaceous vegetation and varying sizes of shrubs and small trees. Although the wind farm features remain visible, the plantings will serve to help blend the PV arrays into the existing landscape as viewed along Fife Road during all seasons from the time of installation, but their effectiveness will be greater during the leaf-on season and as the plantings further mature.

Viewpoint 8 – Hoaglin Road



Inset 2.2. Left: Existing Conditions. Right: Visual Simulation***Existing Conditions***

Viewpoint 8 is located on Hoaglin Road near the northern edge of the Project Area, approximately 600 feet south of Mohr Road and approximately 160 feet from the nearest proposed PV panel array. This view to the southeast (i.e., toward the Project), from Grand Victory-Mohr Cemetery and nearby Hoaglin Creek, is representative of the Cropland/Pasture LT. In the existing view, a country road extends from the left side near-foreground to the right-side background. The road is backed by a flat agricultural field that also extends from the near foreground to the background. An existing roadside electric distribution pole is a focal point in the foreground and the utility line is also visible as a series of distribution poles in the middle ground and background on either side of Hoaglin Road. In the center of the view, behind the agricultural field, is a large woodlot comprised of deciduous and evergreen trees. The remaining horizon features numerous wind turbines which stand out as more distant focal points against the light-colored sky. Other visible background features include a barn, woodlots, transmission lines and numerous additional structures, including an existing transmission substation along the east side of Hoaglin Road. The existing view is of a rural agricultural/energy production landscape that has relatively low scenic value.

Proposed Project

With the proposed Project in place, the view to the southeast from this viewpoint is significantly altered. Although the country road and existing electric distribution infrastructure remain visible, the large agricultural field is now fully occupied by solar panels, except for a 100-foot wide buffer along the southern side of the county road. The background views of the agricultural field, barn, and faded woodlots are obscured by the solar panels, with only the treetops of the large central woodlot and the upper portions of the wind turbines and electric transmission infrastructure remaining visible. The dominant focal point is now the PV panel array. However, the Project is consistent with the energy production character of the existing view, and an area of remnant open field between the viewer and the panels help to retain some of the rural character.

***Inset 2.2. Left: Visual Simulation. Right: Visual Simulation with Mitigation (5-7 years)******Proposed Project with Mitigation***

With the mitigation plantings in place, and after 5-7 years of growth, the proposed panels and perimeter fencing are almost completely obscured. The plantings are now the character defining focus of the view,

and result in a more enclosed feel. While the plantings significantly alter the open agricultural character of the existing view, they also significantly reduce views of the Project from Grand Victory-Mohr Cemetery and nearby Hoaglin Creek.

Viewpoint 27 – Intersection of US 224 and Smith-Kitzenbarger Road



Inset 2.3. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 27 is located along Smith-Kitzenbarger Road, approximately 30 feet south of U.S. Highway 224, and approximately 170 feet from the nearest proposed PV panel array. This viewpoint is representative of a typical view for travelers along U.S. Highway 224 within the Cropland/Pasture LT. The existing view to the southeast is dominated by an agricultural field which extends from the immediate foreground to the background. Two wind turbines are prominent focal points at the far end of the field, and scattered woodlots can be seen in the central background and further away along the horizon. Agricultural structures, such as barns and silos, as well as several residences on sparsely wooded lots, are also visible in the background. The character of the view is defined by the open expansiveness of the agricultural field and the presence of the wind turbines. These features give the view a working agricultural character, and along with the lack of variety in vegetation and topography, provide for a view of moderate scenic quality.

Proposed Project

With the proposed Project in place, the PV panel arrays largely occupy the open field and compete with the two prominent wind turbines for dominance in the view. Although an area of open field remains present in the foreground, the view of distant woodlots and background agricultural structures and residences is now blocked by the panels. On the left side of the view, treetops of one of the nearer woodlots remain visible. However, the overall character of the view has transitioned from open agricultural land to a view that is defined by the PV panel arrays and previously existing wind turbines, emphasizing the energy production character of the area.



Inset 2.3. Left: Visual Simulation. Right: Visual Simulation with Mitigation (5-7 years)

Proposed Project with Mitigation

With the mitigation plantings in place, and after 5-7 years of growth, the proposed PV panel arrays and perimeter fencing are still visible in the middle ground of the view. However, the proposed plantings screen significant portions of the Project, break up the expanse of the PV panel arrays, and soften the visual impact for drivers travelling along U.S. Highway 224. With the plantings in place, the dark solar panels appear more as the background features behind the vegetation. Although views of the PV panels and wind turbines still give the view an energy generation character, the plantings will serve to lessen the Project's visual impact and help blend it into the existing landscape as viewed along U.S. Highway 224 and Smith-Kitzenbarger Road.

Viewpoint 30 – Galvin Road



Inset 2.4. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 30 is located on Galvin Road approximately 0.5 mile west of Slane Road, and approximately 700 feet from the nearest proposed PV panel array. This viewpoint, facing south from Galvin Road, is representative of the Cropland/Pasture LT, and is typical of views available to local residents and travelers. In the immediate foreground a grassy road shoulder quickly transitions into an agricultural field covered in corn stubble. The agricultural field extends from the foreground into the background, where isolated woodlots and occasional residential and agricultural structures are visible at various distances from the

viewer. The view from this location is open and expansive, has moderate scenic quality, and displays strong agricultural character.

Proposed Project

With the proposed Project in place, PV panel arrays are visible at the far end of the open field. Although visible at this distance, the panels do not dominate the view. A fallow agricultural field continues to extend from the foreground into the background across the entire view. Although the more distant woodlots and structures across the horizon are no longer visible, the nearer woodlots remain visible between and above the panel arrays. Although the view from this location has been altered with the addition of PV panel arrays, the view continues to retain much of its open agricultural character.



Inset 2.4. Left: Visual Simulation. Right: Visual Simulation with Mitigation (5-7 years)

Proposed Project with Mitigation

With mitigation plantings in place, and after 5-7 years of growth, the proposed PV panel arrays and perimeter fencing in the background are partially screened, but still visible. The proposed plantings break up the expanse of the PV panel arrays and soften the visual impact for drivers travelling along Galvin Road. The plantings also help blend the panels into the background vegetation that remains visible in this view, effectively mitigating the visual impact of the facility.

Viewpoint 36 – Intersection of Hoaglin Center Road and Giffin Road

Inset 2.4. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 36 is located at the intersection of Hoaglin Center Road and Giffin Road, approximately 400 feet from the nearest proposed PV panels. The view to the southeast from this location includes Hoaglin Center Road on the far right side, which extends from the immediate foreground into the background. The central and left portions of the view are dominated by an open agricultural field that also extends from the immediate foreground into the background. The roadway is flanked by an overhead distribution line and a narrow strip of grass shoulder along the east side of the road. A residence and several outbuildings are visible in the background on the right side of the road. Along the horizon there are isolated woodlots, residences, agricultural structures, an electric transmission line and an apparent cell tower. The existing view has strong rural agricultural character with an open, expansive feel.

Proposed Project

With the proposed Project in place, the back portion of the agricultural field is replaced by solar panels. Although the view retains an open feel, because of the significant setback from the roadway, the panels block view of the more distant landscape features. Beyond the panel arrays, only the taller agricultural and electric transmission line structures, as well as tree-tops of the closer woodlot, remain visible. The expansive feel of this view is reduced, and the rural/residential character is altered by the presence of the Project. However, the setback of the PV panel array from the roadway helps to maintain an open view and agricultural character of the area.



Inset 2.4. Left: Visual Simulation. Right: Visual Simulation with Mitigation (5-7 years)

Proposed Project with Mitigation

With the mitigation plantings in place, and after 5-7 years of growth, the PV panel array appears to be part of a background woodlot. Although there continues to be some visibility of the PV panel arrays and perimeter fencing in the background, the proposed plantings break up the expanse of the PV panel arrays and soften the visual impact for drivers travelling along Galvin Road. The plantings help blend the distant panels into the existing trees and distant woodlot in the background of the view, and their setback from the road maintains the open agricultural character of the view.

Summary

In locations where panels are directly adjacent to roads and residences, the proposed PV arrays are likely to have some adverse effect on the scenic quality or existing landscape character by introducing a solar energy production component to the landscape, thus further emphasizing the electric production aspects of the current rural residential/agricultural landscape. However, as demonstrated in the simulations, the impact of the Project diminishes quickly with distance, and installation of mitigation plantings lessens the visual impact of the Project in the near-foreground views. The plantings provide screening and break up the horizontal lines and man-made form and texture of the PV arrays and fence line, helping to mitigate visual impacts of the Project by merging its components with the existing landscape.

3.0 CONCLUSIONS

3.1 Visual Resource Assessment Summary

Based on the analyses described above, the following conclusions can be drawn regarding the visibility and visual effect of the proposed Wild Grains Solar Project.

The PV panel viewshed analysis indicates that the proposed solar arrays will be screened from view throughout approximately 46.5% of the VSA. PV panel visibility is highest (95.9%) within the near-foreground (up to 0.5 mile) distance zone. Significant portions of the near-foreground viewshed are concentrated within the Project Area itself and the open fields located adjacent to the Project. Potential visibility is slightly reduced in the foreground distance zone (0.5 to 1.5 miles), with 89.5% of this zone having potential views of the Project. In the middle ground distance zone (1.5 to 4 miles), potential Project visibility diminishes substantially to 52.1% due to screening provided by intervening topography, vegetation and structures. These features have even more of a screening effect in the background zone (4 miles to 5 miles) where visibility is further reduced to 27.5%.

The above-ground electrical components viewshed analysis indicates that the tallest structures associated with these Project components will have potential visibility from 24.5% of the VSA (i.e., visibility is fully screened from 75.5% of the VSA). Actual visibility of these components from middle ground and background locations will be less than suggested by the viewshed analysis due to the effects of distance in combination with narrow profile of these components, which will help them blend with the background vegetation and sky.

Viewshed analysis of the 237 identified VSRs within the VSA indicates that 18 resources (8%) could have views of the PV panels only, 38 (16%) could have views of both the PV panels and the above-ground electrical components, and none are indicated as having potential views of the above-ground electrical components only. Of the 18 resources with potential PV panel visibility, 14 (78%) are located outside of the near-foreground distance zone (>0.5 mile). Viewshed results suggest that areas of potential visibility from VSRs in the middle ground and background will generally be limited to small areas within the property and/or include only a limited number of PV panel arrays.

Field review generally confirmed the results of the viewshed analysis and further suggests that visibility of the Project will be largely restricted to areas within the near-foreground distance zone. Beyond 0.5 mile, screening provided by structures in areas of more concentrated development (city and village areas), along with woodlots, hedgerows, and the many adjacent wooded stream corridors in more rural portions of the VSA (in combination with the low height of the solar panels), will significantly limit Project visibility.

As illustrated in the visual simulations, when viewed from near foreground locations the Project will result in varying levels of visual impact depending on the sensitivity of affected viewers, panel setbacks from roads and residences, and/or proposed mitigation plantings. The seasonal presence of corn crops in actively farmed fields will provide effective screening from many locations during portions of the summer season. However, during the rest of the year, the Project will introduce areas of solar panels and associated

structures that can affect the scenic quality and/or existing agricultural character of the landscape. Unlike the visual impacts associated with the existing wind turbines, the visibility and potential visual impact of the solar panels and associated infrastructure diminishes rapidly as the Project is viewed from greater distances, where PV arrays tend to blend more with features in the background. Consequently, it is anticipated that impacts will be largely limited to areas directly adjacent to the Project.

3.2 Mitigation

Visual screening may be implemented in the form of direct payment or reimbursement to affected residences so that they can install their preferred vegetation or other screening, at their choosing. As an alternative, the use of mitigation plantings at select locations along the perimeter of the PV arrays may be used to lessen the visual impact of the Project when viewed from non-participating residences with a direct line of sight of the Facility from near-foreground distances. The conceptual mitigation plan developed for this Project is based on the philosophy that 100% opaque screening throughout the Project is not feasible or necessary, and that carefully positioned clusters of native plant materials can be used to integrate the Project into the surrounding landscape. The proposed plantings are designed to mimic and blend with the existing screening found on and around the Project Area (see Appendix C: Landscape Mitigation Plan for additional details). As discussed in Section 2.2.2 of this VRA, and illustrated in the simulations included in Appendix D, setbacks of the proposed PV arrays from adjacent roadways and residences, as well as the introduction of mitigation plantings mitigates the visual impact of the Project when viewed at near-foreground distances. The plantings provide significant screening and also serve to break up the horizontal lines and man-made texture and form presented by the PV panels and fence line. This helps the Project blend with the new and existing vegetation rather than stand out as a discordant element of the landscape. Vegetative mitigation will minimize the visual impact on adjacent residences and will provide aesthetic as well as ecological benefits.

4.0 REFERENCES

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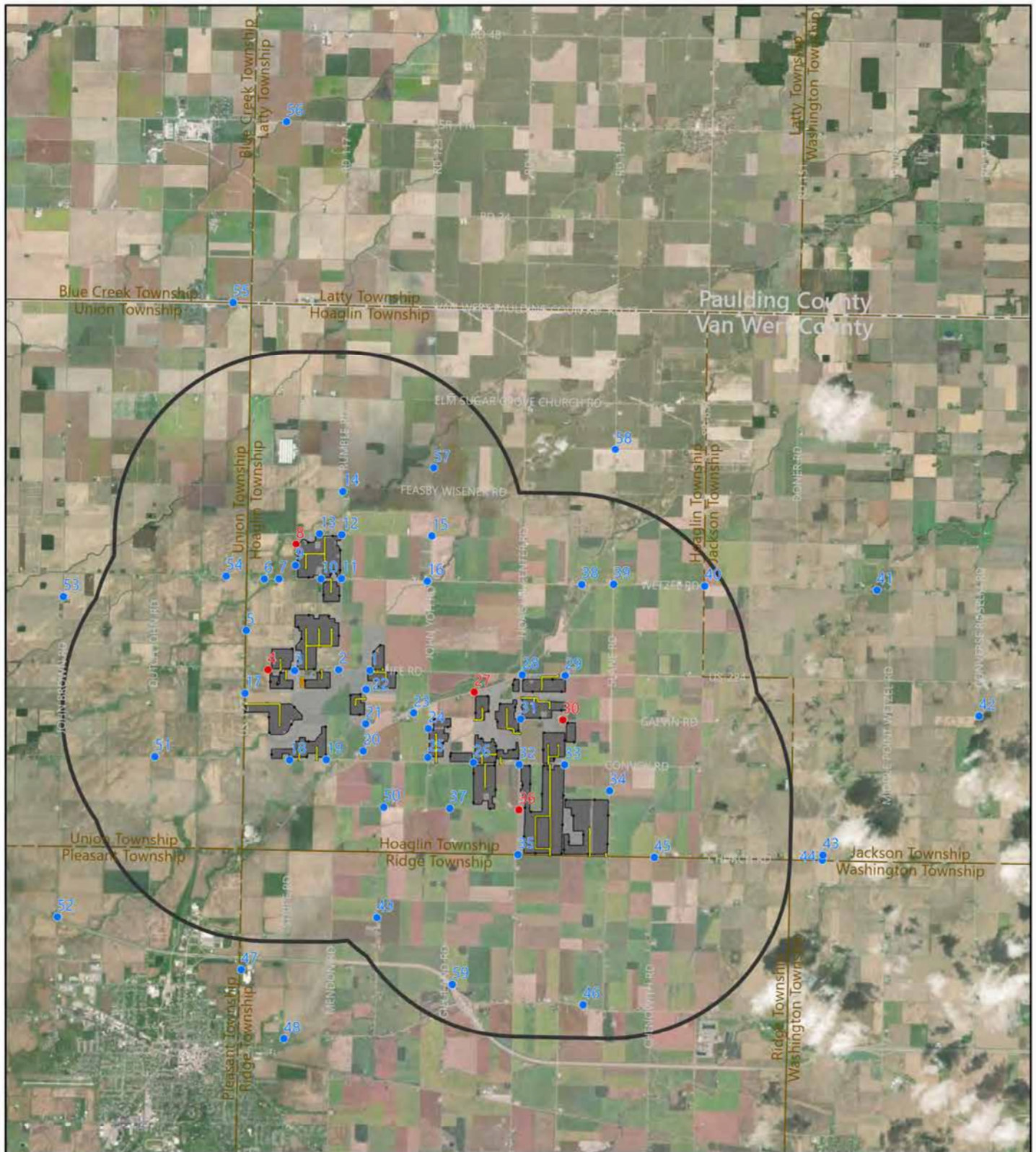
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Appendix A

Viewpoint Location Map and Photo Log



Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

- Viewpoint
- Recommended Viewpoint
- PV Panel Array
- Access Road
- Fenceline
- Collection Substation
- Project Area
- 2-Mile Study Area
- County Boundary
- Township Boundary



Viewpoint 1

View looking northeast from Fife Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Maddox Creek

Coordinates:
40.93183° N, 84.54596° W

Direction of View:
55.3°

Elevation:
751.8 Ft

Viewpoint 2

View looking southwest from Fife Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Maddox Creek

Coordinates:
40.93179° N, 84.55252° W

Direction of View:
224.1°

Elevation:
752.3 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 3

View looking west southwest from Fife Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.93148° N, 84.56177° W

Direction of View:
248.6°

Elevation:
754.2 Ft

Viewpoint 4

View looking southeast from Fife Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.93154° N, 84.56755° W

Direction of View:
134.1°

Elevation:
755.7 Ft

Viewpoint Recommended for the Production of a Visual Simulation

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 5

View looking southeast from US-127 in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
US Hwy 127

Coordinates:
40.93779° N, 84.57214° W

Direction of View:
132.6°

Elevation:
754 Ft

Viewpoint 6

View looking east northeast from Wetzel Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Hoaglin Creek, US Hwy 127

Coordinates:
40.94595° N, 84.56865° W

Direction of View:
77.1°

Elevation:
748.8 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment



Viewpoint 7

View looking east northeast from Wetzel Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):
Hoaglin Creek

Coordinates:
40.94601° N, 84.56549° W

Direction of View:
76.7°

Elevation:
750.5 Ft



Viewpoint 8

View looking south southeast from Hoaglin Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):
Grand Victory-Mohr Cemetery,
Hoaglin Creek

Coordinates:
40.95163° N, 84.56208° W

Direction of View:
166.7°

Elevation:
747 Ft

Viewpoint Recommended for the Production of a Visual Simulation

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 9

View looking east northeast from Hoaglin Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):
Hoaglin Creek

Coordinates:
40.94821° N, 84.56213° W

Direction of View:
65.4°

Elevation:
748.6 Ft



Viewpoint 10

View looking east southeast from Wetzel Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):

Coordinates:
40.94615° N, 84.5566° W

Direction of View:
122.5°

Elevation:
749.5 Ft



Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 11

View looking southwest from Wetzels Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.94626° N, 84.55229° W

Direction of View:
224.4°

Elevation:
748.2 Ft

Viewpoint 12

View looking south southwest from Rumble Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Hoaglin Creek

Coordinates:
40.95334° N, 84.55253° W

Direction of View:
204.1°

Elevation:
746.5 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 13

View looking south southwest
from Mohr Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
Hoaglin Creek

Coordinates:
40.95341° N, 84.55729° W

Direction of View:
203.5°

Elevation:
746.2 Ft

Viewpoint 14

View looking south southwest
from Rumble Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
Grand Victory Church, Hoaglin
Creek

Coordinates:
40.96019° N, 84.55251° W

Direction of View:
200.5°

Elevation:
744.6 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 15

View looking southwest from John Yoh Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.95355° N, 84.53354° W

Direction of View:
234.8°

Elevation:
744.8 Ft

Viewpoint 16

View looking west southwest from Wetzel Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Maddox Creek

Coordinates:
40.94618° N, 84.53425° W

Direction of View:
238.4°

Elevation:
739.4 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 17

View looking east northeast from US-127 in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
US Hwy 127

Coordinates:
40.92765° N, 84.57209° W

Direction of View:
61.1°

Elevation:
759.3 Ft

Viewpoint 18

View looking east from Convoy Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.9171° N, 84.56227° W

Direction of View:
90°

Elevation:
758.4 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 19

View looking west northwest
from Convoy Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
Town Creek, US Hwy 224

Coordinates:
40.91733° N, 84.55468° W

Direction of View:
287.3°

Elevation:
754.6 Ft

Viewpoint 20

View looking west from US-224
in Hoaglin Township, Van Wert
County, Ohio



Visually Sensitive Resource(s):
Hattery School, George Carlo Bank
Barn, Town Creek, US Hwy 224

Coordinates:
40.91889° N, 84.5469° W

Direction of View:
272.1°

Elevation:
755.1 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 21

View looking north northwest
from Hattery Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
Town Creek, US Hwy 224

Coordinates:
40.92324° N, 84.54653° W

Direction of View:
330°

Elevation:
752.6 Ft

Viewpoint 22

View looking east from Hattery
Road in Hoaglin Township, Van
Wert County, Ohio



Visually Sensitive Resource(s):
Maddox Creek

Coordinates:
40.92882° N, 84.54671° W

Direction of View:
83.9°

Elevation:
752.5 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 23

View looking southeast from
US-224 in Hoaglin Township, Van
Wert County, Ohio



Visually Sensitive Resource(s):
Town Creek, US Hwy 224

Coordinates:
40.92522° N, 84.53652° W

Direction of View:
137.7°

Elevation:
752.3 Ft

Viewpoint 24

View looking east southeast
from John Yoh Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):

Coordinates:
40.92278° N, 84.53338° W

Direction of View:
109.7°

Elevation:
752.4 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 25

View looking east southeast from John Yoh Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.91815° N, 84.53339° W

Direction of View:
114.4°

Elevation:
754.1 Ft

Viewpoint 26

View looking east from Smith Kitzenbarger Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.9174° N, 84.52369° W

Direction of View:
92.9°

Elevation:
753.4 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 27

View looking south southeast from Smith Kitzenbarger Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Town Creek, US Hwy 224

Coordinates:
40.92875° N, 84.52389° W

Direction of View:
161.8°

Elevation:
748.5 Ft

Viewpoint Recommended for the Production of a Visual Simulation

Viewpoint 28

View looking south southeast from Hoaglin Center Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Town Creek, US Hwy 224

Coordinates:
40.93185° N, 84.51393° W

Direction of View:
161.1°

Elevation:
746.8 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 29

View looking southwest from US-224 in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
US Hwy 224

Coordinates:
40.93172° N, 84.50482° W

Direction of View:
233.6°

Elevation:
749.3 Ft

Viewpoint 30

View looking west southwest from Galvin Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.92462° N, 84.5051° W

Direction of View:
246.3°

Elevation:
750.2 Ft

Viewpoint Recommended for the Production of a Visual Simulation

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 31

View looking west northwest from Hoaglin Center Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.92455° N, 84.51402° W

Direction of View:
289.8°

Elevation:
750.5 Ft

Viewpoint 32

View looking west southwest from Convoy Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.91732° N, 84.5141° W

Direction of View:
249.4°

Elevation:
754 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 33

View looking south southwest from Convoy Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):

Coordinates:
40.91748° N, 84.50399° W

Direction of View:
200.3°

Elevation:
753.1 Ft



Viewpoint 34

View looking west from Slane Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):

Coordinates:
40.91352° N, 84.49498° W

Direction of View:
278.6°

Elevation:
753.5 Ft



Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 35

View looking north from Hoaglin Center Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.90300° N, 84.51401° W

Direction of View:
6.8°

Elevation:
760.2 Ft

Viewpoint 36

View looking south from Hoaglin Center Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.91012° N, 84.51399° W

Direction of View:
171.7°

Elevation:
756.9 Ft

Viewpoint Recommended for the Production of a Visual Simulation

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 37

View looking north from Giffin Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.91016° N, 84.52882° W

Direction of View:
354.7°

Elevation:
755.6 Ft

Viewpoint 38

View looking south southwest from Wetzel Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Duncard Cemetary

Coordinates:
40.94624° N, 84.50184° W

Direction of View:
213.6°

Elevation:
742.074 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 39

View looking south southwest from Wetzel Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.94639° N, 84.49513° W

Direction of View:
230.2°

Elevation:
743.089 Ft

Viewpoint 40

View looking south southwest from Wetzel Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

SR 637

Coordinates:
40.94645° N, 84.47599° W

Direction of View:
239.3°

Elevation:
742.182 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 41

View looking southwest from Wetzell Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.94642° N, 84.43972° W

Direction of View:
228.6°

Elevation:
736.962 Ft

Viewpoint 42

View looking west from Converse Roselm Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Converse Rose Elm Road

Coordinates:
40.92671° N, 84.41771° W

Direction of View:
265.9°

Elevation:
744.933 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 43

View looking west from Dog Creek Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.90399° N, 84.44987° W

Direction of View:
280.9°

Elevation:
757.524 Ft

Viewpoint 44

View looking west from Dog Creek Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s): Grace Church

Coordinates:
40.90319° N, 84.44995° W

Direction of View:
283.1°

Elevation:
759.635 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 45

View looking northwest from Church Road in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):
Church Road

Coordinates:
40.90302° N, 84.48527° W

Direction of View:
283.3°

Elevation:
758.415 Ft



Viewpoint 46

View looking north from Lincoln Highway in Hoaglin Township, Van Wert County, Ohio

Visually Sensitive Resource(s):

Coordinates:
40.87929° N, 84.49953° W

Direction of View:
347.4°

Elevation:
782.155 Ft



Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 47

View looking northeast from Marsh Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
County Road 13

Coordinates:
40.88356° N, 84.57150° W

Direction of View:
41.9°

Elevation:
769.641 Ft

Viewpoint 48

View looking north from Stripe Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):
Marsh Foundation School

Coordinates:
40.87275° N, 84.56219° W

Direction of View:
4.7°

Elevation:
783.654 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 49

View looking north from Boroff Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.89241° N, 84.54325° W

Direction of View:
0.7°

Elevation:
765.345 Ft

Viewpoint 50

View looking northeast from Giffin Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.91006° N, 84.54237° W

Direction of View:
60.3°

Elevation:
757.557 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 51

View looking northeast from
Convoy Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
CR 168 Substation

Coordinates:
40.91718° N, 84.59071° W

Direction of View:
71.7°

Elevation:
761.478 Ft

Viewpoint 52

View looking northeast from
John Brown Road in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):
US 30

Coordinates:
40.89129° N, 84.61037° W

Direction of View:
40.6°

Elevation:
767.434 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 53

View looking east from John Brown Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.94239° N, 84.61073° W

Direction of View:
112.4°

Elevation:
755.662 Ft

Viewpoint 54

View looking east from Dixon Cavett Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.94627° N, 84.57662° W

Direction of View:
149.4°

Elevation:
751.122 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 55

View looking southeast from
Blaine Street in Hoaglin
Township, Van Wert County,
Ohio



Visually Sensitive Resource(s):

Coordinates:
40.98992° N, 84.57654° W

Direction of View:
170°

Elevation:
738.907 Ft

Viewpoint 56

View looking south from OH-114
in Hoaglin Township, Van Wert
County, Ohio



Visually Sensitive Resource(s):
Prairie Creek

Coordinates:
41.01897° N, 84.56618° W

Direction of View:
179.6°

Elevation:
732.831 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 57

View looking southwest from John Yoh Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.96433° N, 84.53351° W

Direction of View:
227.1°

Elevation:
742.636 Ft

Viewpoint 58

View looking south from Slane Road in Hoaglin Township, Van Wert County, Ohio



Visually Sensitive Resource(s):

Coordinates:
40.96795° N, 84.49543° W

Direction of View:
211.2°

Elevation:
734.811 Ft

Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Viewpoint 59

View looking north from US-30
in Hoaglin Township, Van Wert
County, Ohio

Visually Sensitive Resource(s):
US 30

Coordinates:
40.88201° N, 84.52711° W

Direction of View:
26.3°

Elevation:
775.961 Ft



Wild Grains Solar

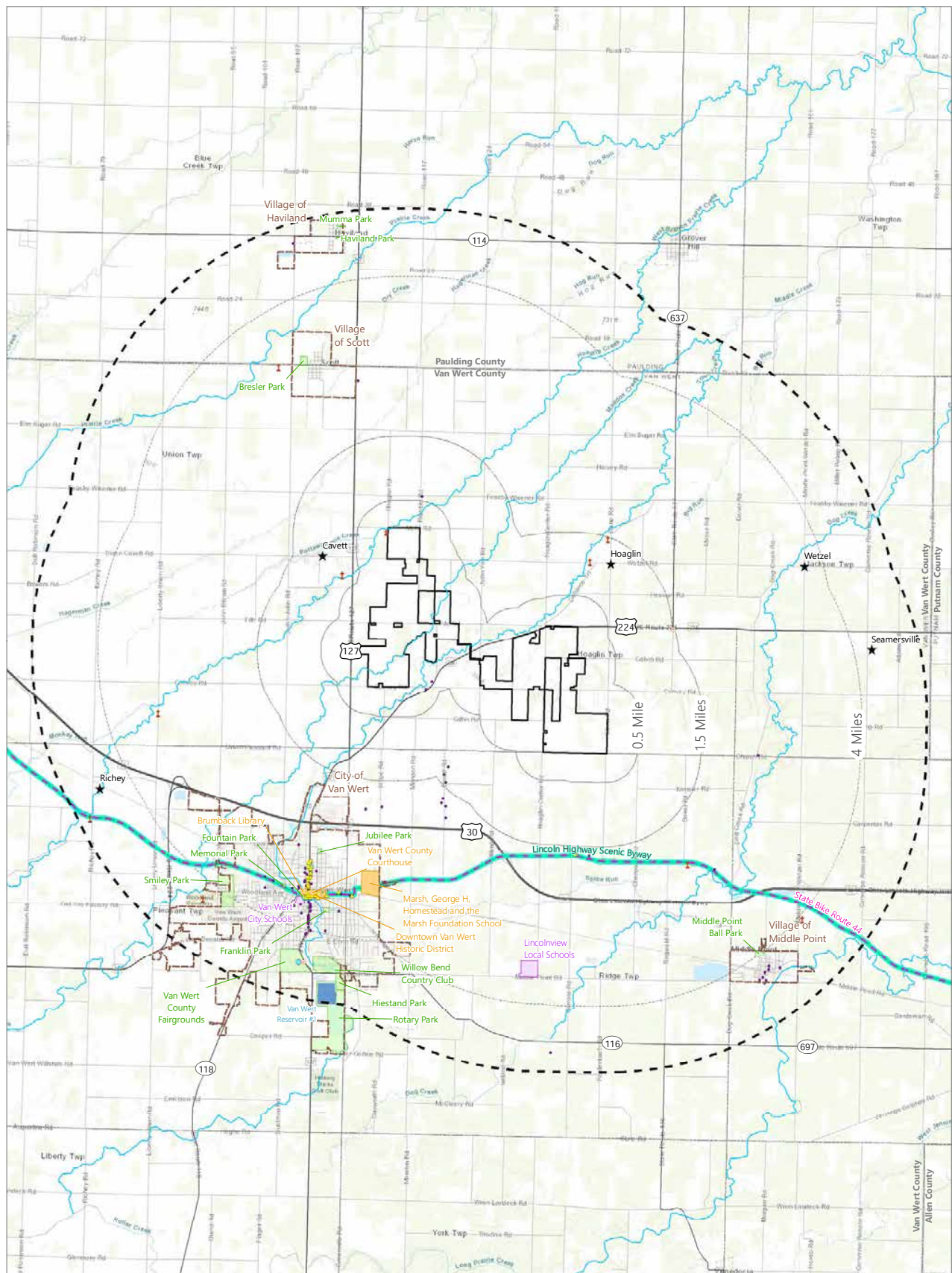
Hoaglin Township, Van Wert County, Ohio

Visual Resource Assessment

Appendix B

Location of Visually Sensitive Resources

Appendix B. Visually Sensitive Resources



Wild Grains Solar

Hoaglin Township
Van Wert County, Ohio

Visual Resource Assessment

- Ohio Historic Marker
- ▲ NRHP-Eligible Resource
- OHI Historic Structure
- Historic Bridge
- OGS Cemetery
- ★ Unincorporated Area
- Public Fishing River/Stream
- Bike Route
- Scenic Byway
- State/US/Interstate Highway
- Named Lake/Pond/Reservoir
- Local Park/Recreation
- NRHP-Listed Resource
- School
- Distance Zone Transition
- Project Area
- 5-Mile Study Area
- County Boundary
- Township Boundary



Appendix C

Landscape Mitigation Plan



Wild Grains Solar | Landscape Mitigation Plan

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Section I | Introduction

Wild Grains Solar is proposing an up to 150 MW solar energy facility with a total facility footprint of 1,000 acres spanning across approximately 2,350 acres of land (Project Site) in Van Wert County, Ohio. Wild Grains Solar in consultation with Environmental Design and Research, Landscape Architecture, Engineering & Environmental Service, D.P.C. (EDR), has worked to develop this conceptual plan to propose potential mitigation options to be used in future designated locations around the proposed facility. These conceptual planting modules are designed to utilize regionally native plant material which is intended to complement the existing vegetation within and adjacent to the Project Site. The recommended planting modules are not intended to provide complete screening of the project infrastructure. Rather, the mitigation is intended to provide intermittent screening and softening of the view while providing ecological benefits through the creation of habitat areas for local wildlife. The landscape mitigation plan outlined in the subsequent pages represents a preliminary concept to accomplish the goals above as they relate to the mitigation of adjacent non-participating parcels.

Section II | Design Methodology

The vegetative mitigation presented herein is designed with the intent of softening the hard edges often introduced by solar arrays and the associated security fence. Depending on the location and distance of resources adjacent to the Project Site, various plant types and densities will be proposed on the Project Site in order to provide an appropriate level of mitigation. For example, mitigation for a residence in close proximity to the Project Site with views focused directly into the solar array may require a more dense planting module than a local road where only fleeting views of the Project may be available. As such, this plan considers three preliminary planting modules which vary in density and plant material. The modules were developed utilizing the following strategies:

- Analysis of the landscape character and climatic conditions.
- Research of regional flora native and/or common to the surrounding area.
- Retain existing long-distance views where possible.
- Reduce visual contrast to the greatest extent practicable.
- Implement a regionally-native plant scheme to assimilate the facility into its surroundings as well as provide ecological benefit.

As an alternative to the mitigation options presented in this plan, the Applicant intends to work with individual landowners to develop a mutually agreeable approach to mitigate potential visual impacts to adjacent residences. It is anticipated that mitigation developed through this approach would be installed off-site and therefore is not included in the mitigation plan.

VISUAL SCREENING

Selecting the appropriate visual barrier is dependent on the context of the surroundings. While an opaque fence is best suited to an urban setting, it would not fit in a rural landscape. Landforms, such as a berm or earthen mounds are best suited to suburban situations where they are scale appropriate and the movement of agricultural soil is not a concern. Vegetative buffers, on the other hand, provide the most simple and appropriate relationship to this environment. The use of vegetation mimics the existing farm field hedgerow borders while obscuring/screening the contrast of the solar facility.

PLANT MATERIALS

Selecting plant materials native to the general region yields a high opportunity for establishment success. These species are best suited for their site-specific climate, will require minimal maintenance and will have the greatest likelihood to thrive. Planting regionally native species allows the facility to become more quickly integrated into its surrounding vegetation, while providing habitat, food, and shelter for other native species of insects, birds, and wildlife.

Using seed mixes of various regionally native grasses is an efficient method of introducing a large amount of biodiversity to a site in a way that compliments the existing landscape. Creating habitat for insects, birds, butterflies and bees provides an ecological benefit to the surrounding monoculture of agricultural crops. These plantings provide cover, food, breeding and feeding grounds for a variety of species. In addition to the ecological benefits, these areas help to soften the views of solar facilities while maintaining open views and vistas. Herbaceous plantings help stabilize soils and filter runoff, especially in roadside conditions. These native grasses can provide visual interest both while in bloom and when left to stand over winter.

Section III | Plant Material Selection & Maintenance

Existing vegetation in and around the site consists of mainly agricultural crops. Minimal forested areas, small stream banks and a few spars hedgerows also occur within the visual study area. These areas consist mainly of deciduous vegetation with a mixture of evergreens. These stands provide key information in the species selections process.

PLANT MATERIAL MAINTENANCE

While the plant material outlined in this report has been selected for its ability to blend into the existing landscape and eliminate the need for prolonged maintenance, Wild Grains has still developed a strategy to review the plant material after initial installation to ensure the functions outlined in this report are met moving forward.

For woody plant material, Wild Grains will inspect visual mitigation planting to identify plant material that did not survive, appears unhealthy and/or otherwise needs to be replaced. Wild Grains will remove and replace plantings as necessary.

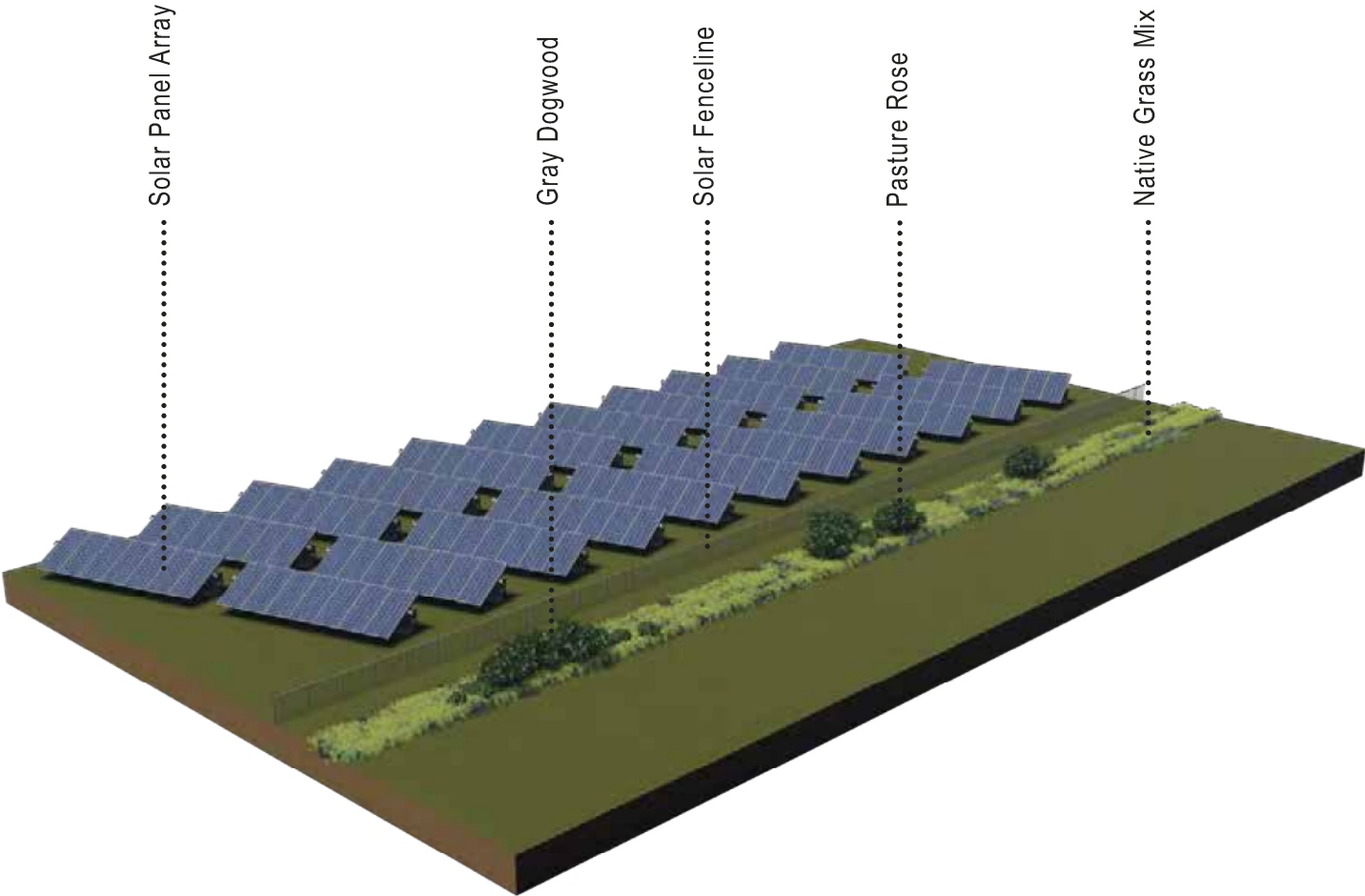
Wild Grains will periodically evaluate and determine if the mitigation planting is still accomplishing the goals outlined in this report. If the remaining vegetation accomplishes these goals, no further action will be taken. If deemed insufficient, new planting or others means of screening will be recommended for installation.

For grasses and other herbaceous plant material, Wild Grains will conduct periodic mowing to assist in the establishment and promote re-propagation.

Section IV | Planting Modules

MODULE TYPE 1: NATIVE GRASS AND LOW SHRUB MIX

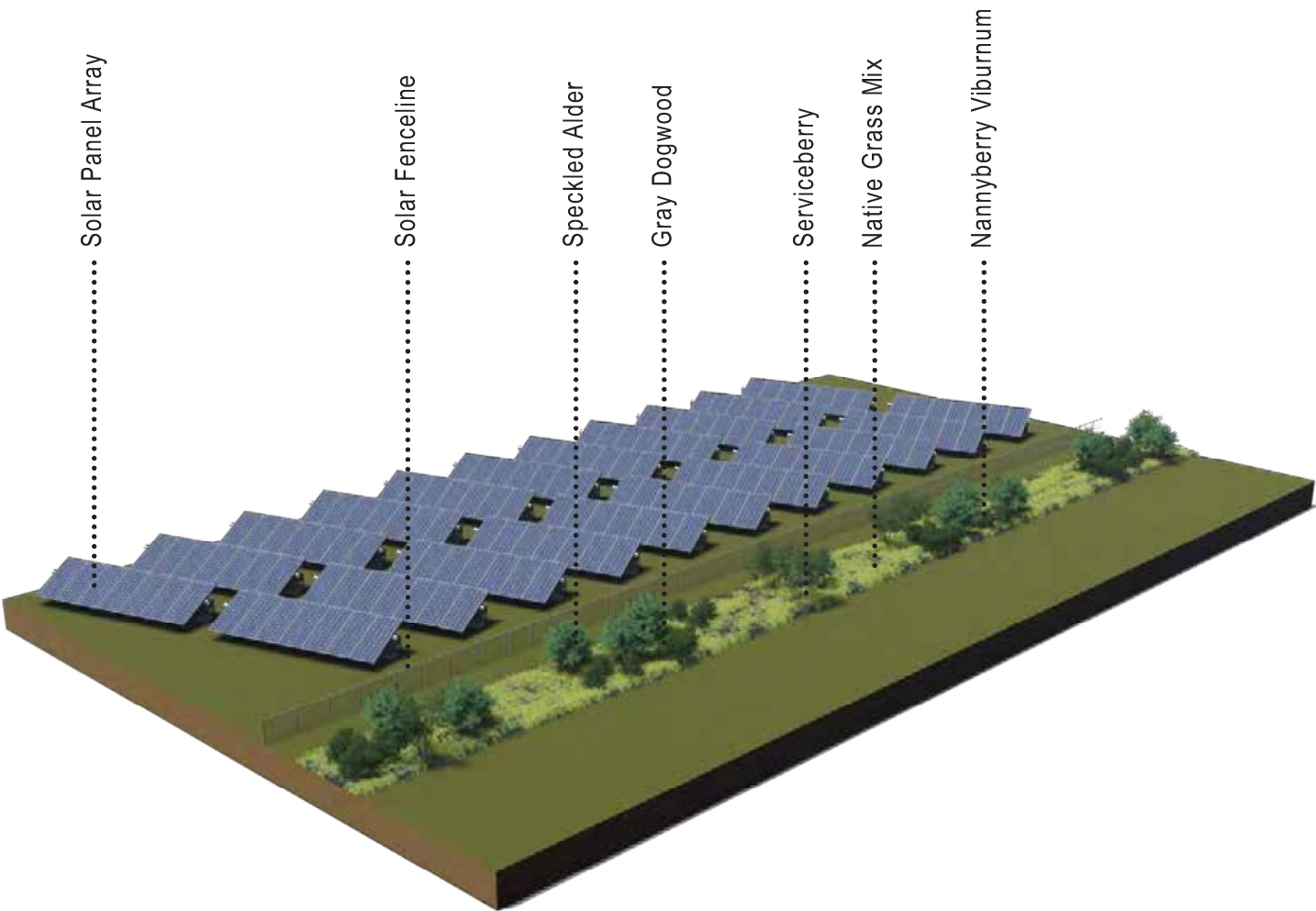
Module type 1 serves two main functions: one is to provide visual softening in areas of low to medium visibility with short or infrequent viewer occurrence, such as along roadsides. The second is to provide ecological benefits by creating a habitat for wildlife. This module consists of a seed mix of regionally native grasses that provides visual interest and ecological diversity, and a series of small and medium shrubs to add texture and break up the horizontal ground plane along extended views of the project infrastructure.



Sample | Module Type 1

MODULE TYPE 2: VERTICAL SOFTENING

Module type 2 is used in areas of frequent viewership but without prolonged viewer duration. Consisting of shrubs of varying scale and form, Module 2 has the ability to visually break up the horizontal line of the solar array, to provide partial to full screening in some areas. The low plantings allow for mitigation while maintaining long views and open sky over the top of the solar facility, preserving important vistas. Proposed native vegetation helps connect and blend the facility into its surrounding context.



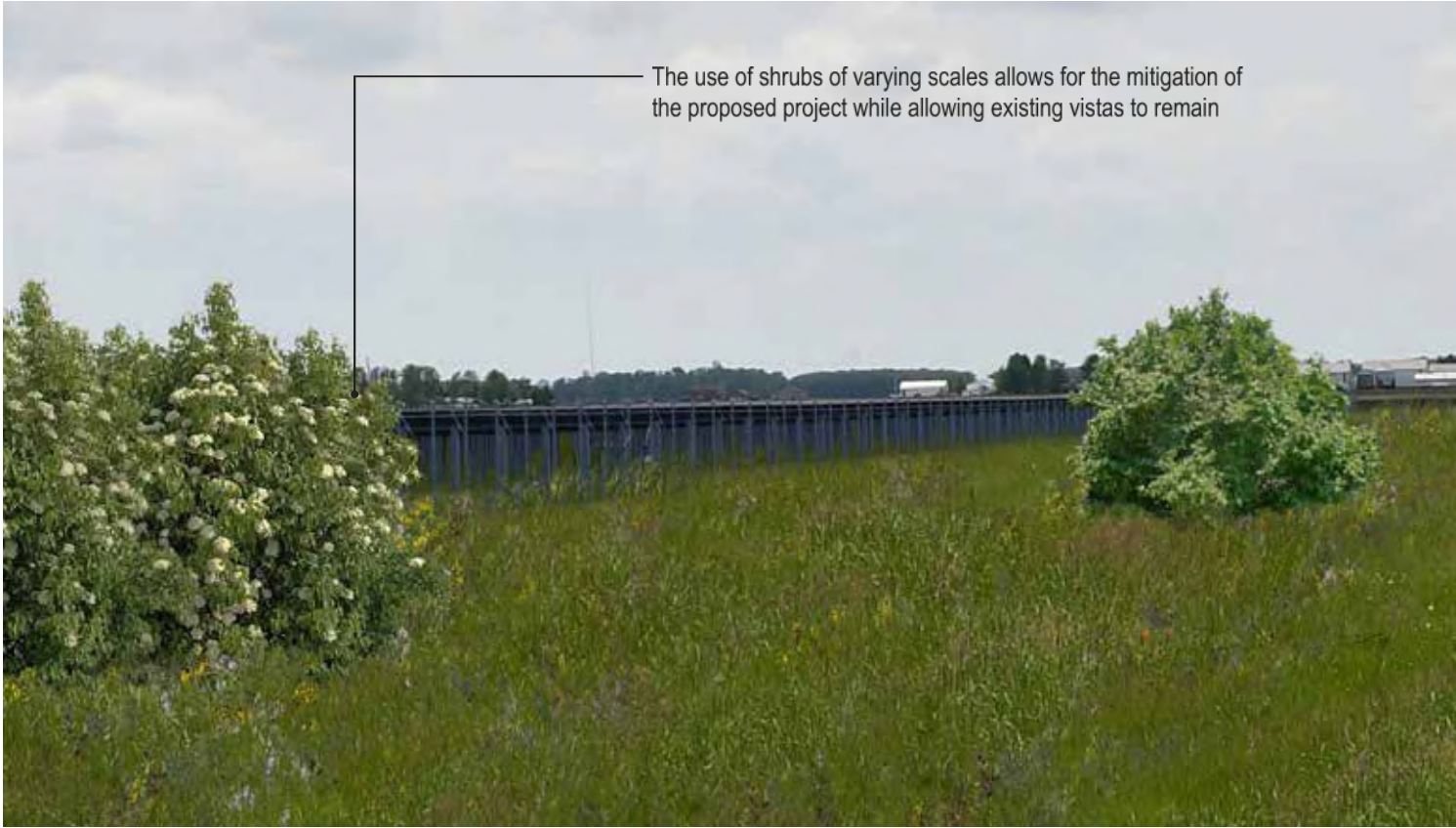
Sample | Module Type 2

SAMPLE MODULE VISUALIZATIONS



The native grass mix helps to blend the proposed facility into the surrounding context

Module Type 1 | Sample Visualization



The use of shrubs of varying scales allows for the mitigation of the proposed project while allowing existing vistas to remain

Module Type 2 | Sample Visualization

Section V | Conclusion

Mitigation of visual impacts is an important component of the development of a solar facility. Providing a vegetative buffer helps to mitigate contrast in forms, color, and texture and to preserve the overall scenic quality and integrity of the site. The two preliminary design modules demonstrate potential mitigation options that could be incorporated into the Project. In addition to the visual mitigation provided, the selection of native species further enhances ecological benefits through habitat creation, and increased biodiversity.

It is anticipated the proposed plan will be effective in achieving the goals of outlined in this plan. However, appropriate planting medium, the presence of utilities, and input from the local municipality and project stakeholders may result in alterations or substitutions to the proposed materials. It is anticipated the concepts included in this plan would result in the successful mitigation of the potential visual effects resulting from the project.

Appendix D

Visual Simulations

Appendix D. Visual Simulations

Viewpoint Information

Viewpoint ID: 4
County: Van Wert
Township: Hoaglin
Location: Fife Road
Latitude, Longitude: 40.93154° N, 84.56755° W
Direction of View: Southeast
Distance to Nearest Visible PV Panel:
Array: 304 ft
Distance Zone: Near-Foreground

Visual Resources

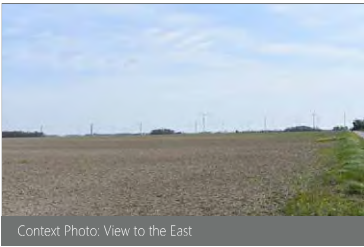
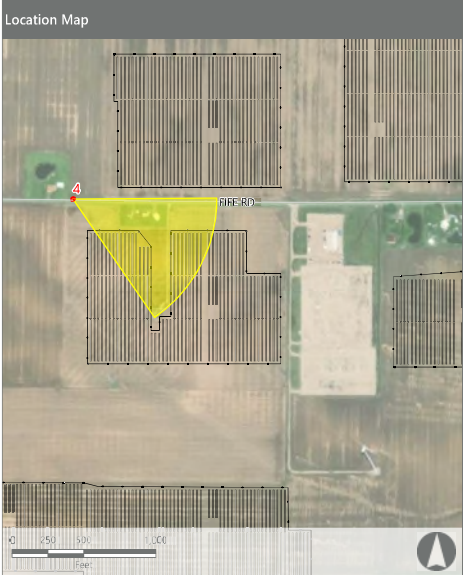
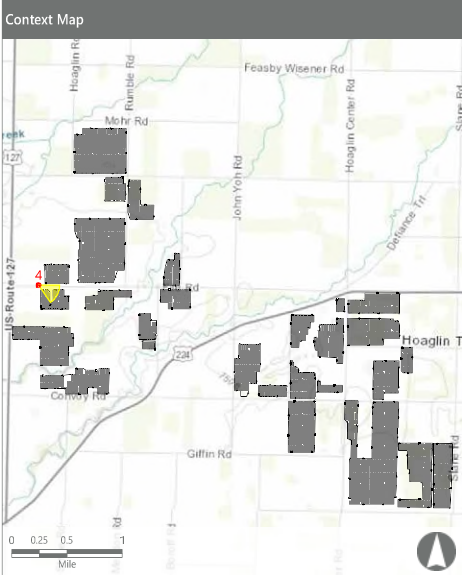
Landscape Type: Cropland/Pasture
User Group: Local Residents
VSR: N/A

Photograph Information

Date Taken: April 27, 2021
Time: 11:30 AM
Camera: Nikon D7200
Resolution: 24 Megapixels
Lens Focal Length: 22.2 mm (34.0 mm)
Camera Elevation: 760.8 ft
Field of View: 55.8 degrees

Project Information

Racking Type: Single Axis Tracker
Max Panel Height: 20 ft AGL
Project Area: 2,324 acres



Existing Conditions



Simulation



Simulation - 5-7 Year Mitigation



Appendix D. Visual Simulations

Viewpoint Information

Viewpoint ID: 8
County: Van Wert
Township: Hoaglin
Location: Hoaglin Road
Latitude, Longitude: 40.95163° N, 84.56208° W
Direction of View: South-Southeast
Distance to Nearest Proposed PV Panel Array: 152ft
Distance Zone: Near-Foreground

Photograph Information

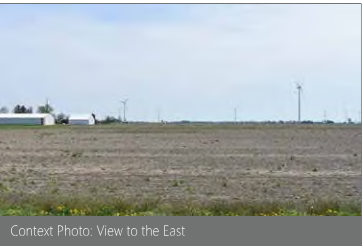
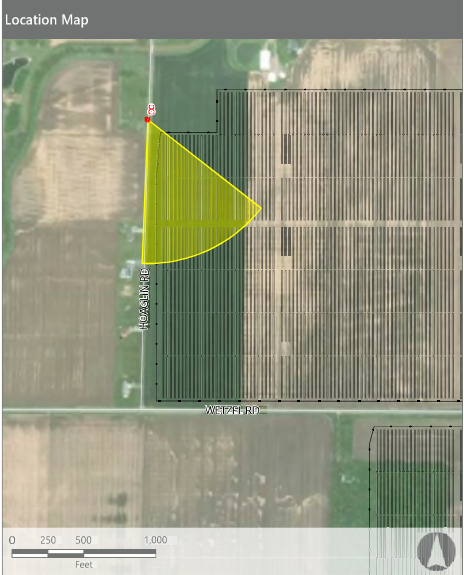
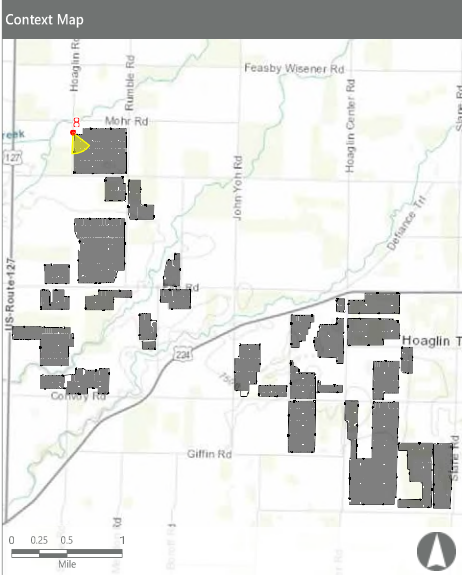
Date Taken: April 27, 2021
Time: 12:00 PM
Camera: Nikon D7200
Resolution: 24 Megapixels
Lens Focal Length: 22.9 mm (35.1 mm)
Camera Elevation: 752.1 ft
Field of View: 54.3 degrees

Visual Resources

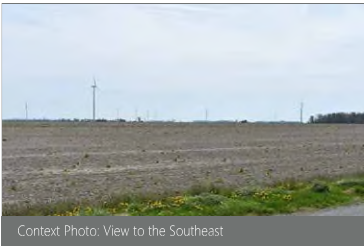
Landscape Type: Cropland/Pasture
User Group: Local Residents, , Tourists/Recreational Users
VSR: Grand Victory-Mohr Cemetery, Hoaglin Creek

Project Information

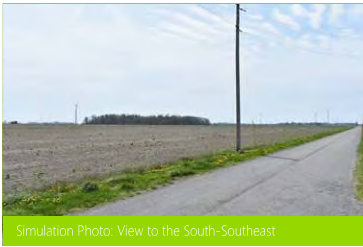
Racking Type: Single Axis Tracker
Max Panel Height: 20 ft AGL
Project Area: 2,324 acres



Context Photo: View to the East



Context Photo: View to the Southeast



Simulation Photo: View to the South-Southeast



Context Photo: View to the South-Southwest

Existing Conditions



Simulation



Simulation - 5-7 Year Mitigation



Appendix D. Visual Simulations

Viewpoint Information

Viewpoint ID: 27
County: Van Wert
Township: Hoaglin
Location: Smith Kitzenbarger Road
Latitude, Longitude: 40.92875° N, 84.52389° W
Direction of View: Southeast
Distance to Nearest Proposed PV
Panel Array: 144t
Distance Zone: Near-Foreground

Visual Resources

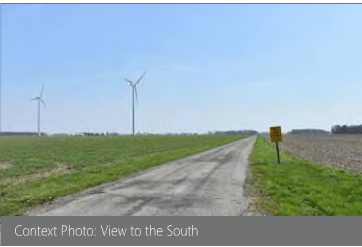
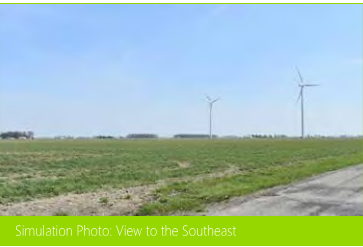
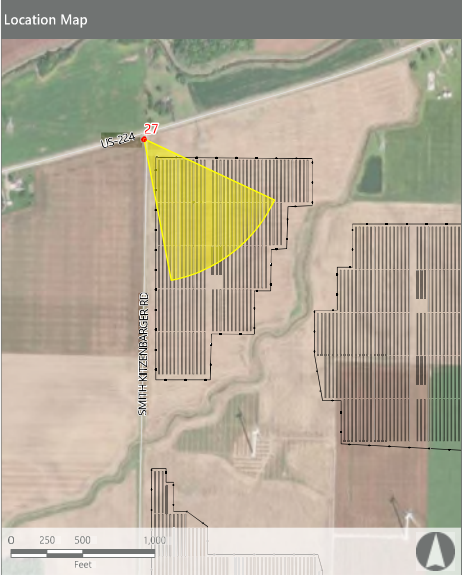
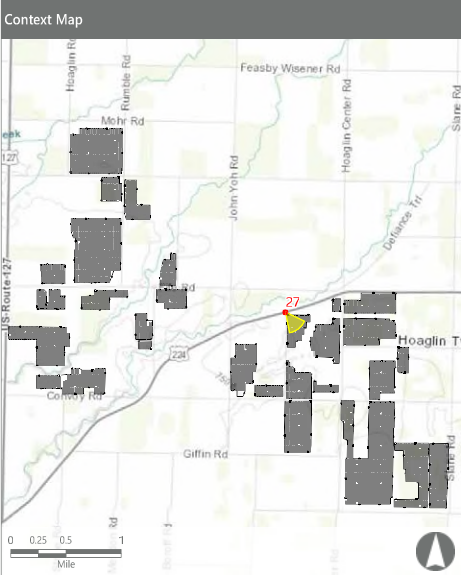
Landscape Type: Cropland/Pasture
User Group: Local Residents, Tourists/
Recreational Users, Through-Travelers/
Commuters
VSR: Town Creek, US Hwy 224

Photograph Information

Date Taken: April 27, 2021
Time: 3:20 PM
Camera: Nikon D7200
Resolution: 24 Megapixels
Lens Focal Length: 23 mm (35.2 mm)
Camera Elevation: 753.6 ft
Field of View: 54.1 degrees

Project Information

Racking Type: Single Axis Tracker
Max Panel Height: 20 ft AGL
Project Area: 2,324 acres



Existing Conditions



Simulation



Simulation - 5-7 Year Mitigation



Appendix D. Visual Simulations

Viewpoint Information

Viewpoint ID: 30
County: Van Wert
Township: Hoaglin
Location: Galvin Road
Latitude, Longitude: 40.92462° N, 84.5051° W
Direction of View: South
Distance to Nearest Proposed PV
Panel Array: 221ft
Distance Zone: Near-Foreground

Visual Resources

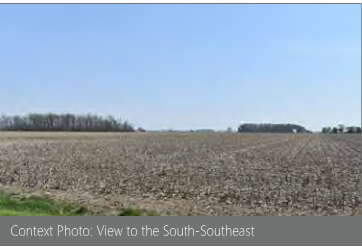
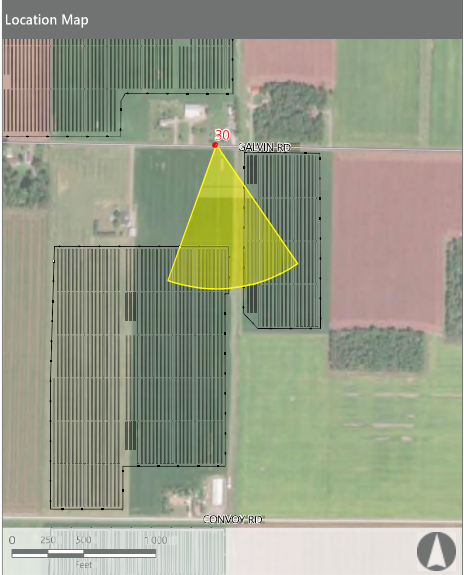
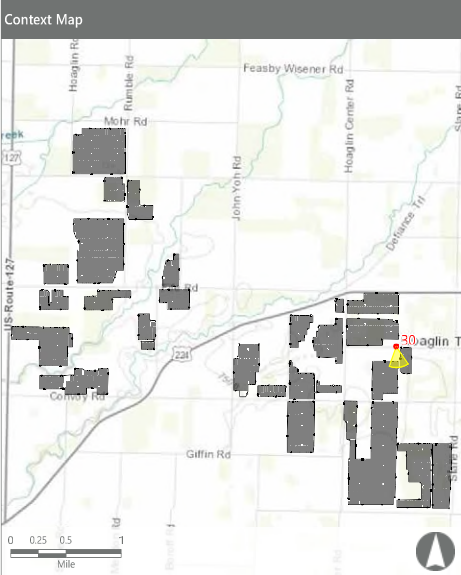
Landscape Type: Cropland/Pasture
User Group: Local Residents
VSR: N/A

Photograph Information

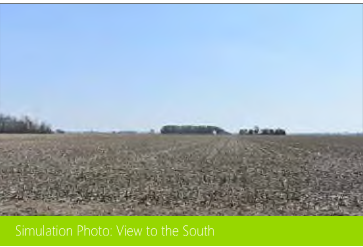
Date Taken: April 27, 2021
Time: 3:40 PM
Camera: Nikon D7200
Resolution: 24 Megapixels
Lens Focal Length: 23 mm (35.2 mm)
Camera Elevation: 755.3 ft
Field of View: 54.1 degrees

Project Information

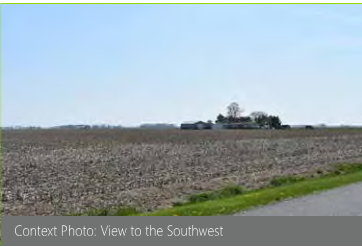
Racking Type: Single Axis Tracker
Max Panel Height: 20 ft AGL
Project Area: 2,324 acres



Context Photo: View to the South-Southeast



Simulation Photo: View to the South



Context Photo: View to the Southwest



Context Photo: View to the West-Southwest

Existing Conditions



Simulation



Simulation - 5-7 Year Mitigation



Appendix D. Visual Simulations

Viewpoint Information

Viewpoint ID: 36
County: Van Wert
Township: Hoaglin
Location: Hoaglin Center Road
Latitude, Longitude: 40.91012° N, 84.51399° W
Direction of View: South-Southeast
Distance to Nearest Proposed PV Panel Array: 159 ft
Distance Zone: Near-Foreground

Visual Resources

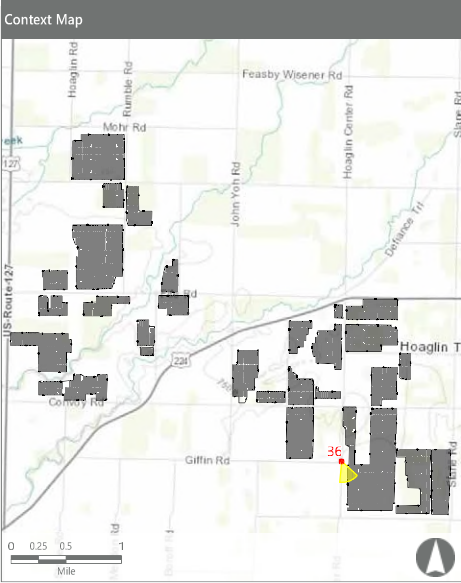
Landscape Type: Cropland/Pasture
User Group: Local Residents
VSR: N/A

Photograph Information

Date Taken: April 27, 2021
Time: 4:20 PM
Camera: Nikon D7200
Resolution: 24 Megapixels
Lens Focal Length: 23.3 mm (35.7 mm)
Camera Elevation: 763.0 ft
Field of View: 53.5 degrees

Project Information

Racking Type: Single Axis Tracker
Max Panel Height: 20 ft AGL
Project Area: 2,324 acres



Context Photo: View to the East-Southeast



Context Photo: View to the Southeast



Simulation Photo: View to the South-Southeast



Context Photo: View to the South

Existing Conditions



Simulation



Simulation - 5-7 Year Mitigation



Appendix E

Visually Sensitive Resources Analysis

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible	+/- Partially Visible
						● Near-Foreground ● Foreground ● Midground ● Background	PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Properties of Historic Significance								
National/State Historic Landmarks								
None in Study Area								
National/State Historic Sites								
None in Study Area								
Sites Listed on National or State Registers of Historic Places (NRHP/SRHP)								
Marsh, George H, Homestead and the Marsh Foundation School	City of Van Wert, Ridge	Van Wert	48	2.9	3.8	●	+/-	+/-
Downtown Van Wert Historic District	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Van Wert County Courthouse	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Brumback Library	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Sites Eligible for Listing on NRHP or SRHP								
Ridge Rd	Ridge	Van Wert		1.6	4.6	●	+/-	-
648 N Washington St	City of Van Wert, Pleasant	Van Wert		2.9	3.8	●	-	-
639 N Washington St	City of Van Wert, Pleasant	Van Wert		3.0	3.8	●	-	-
602 N Washington St	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
603 N Washington St	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
522 N Washington St	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
422 N Washington St	City of Van Wert, Pleasant	Van Wert		3.1	4.0	●	-	-
336 N Washington St	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-
339 N Washington St	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-
321 N Washington St	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-
160 W Sycamore St	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
112 N Race St	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
1010 E Main St	City of Van Wert, Ridge	Van Wert		3.3	4.2	●	-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
223 N Washington St	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
211 N Washington St	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
139 E Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
408 E Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
145 E Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
109-111 W Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
117-119 W Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
144-148 E Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
114 E Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Central Ave. & Market St.	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
100-104 W Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
100 W Main St	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
120 S Washington St	City of Van Wert, Pleasant	Van Wert		3.5	4.4	●	-	-
Jefferson St.	City of Van Wert, Pleasant	Van Wert		3.5	4.4	●	-	-
OHI Historic Structures								
Hattery School	Hoaglin	Van Wert		0.3	1.1	●	+/-	-
George Carlo Bank Barn	Hoaglin	Van Wert		0.3	1.1	●	+/-	+/-
Grand Victory Church	Hoaglin	Van Wert	14	0.5	2.1	●	+/-	+/-
House, 7253 Borroff Road	Ridge	Van Wert		1.2	2.4	●	+/-	-
House, 7374 Boroff Road	Ridge	Van Wert		1.4	2.5	●	+/-	-
House, Boroff Road	Ridge	Van Wert		1.4	2.6	●	+/-	-
Morris Garman House	Ridge	Van Wert		1.6	4.6	●	+/-	-
House, 7734 Boroff Road	Ridge	Van Wert		1.6	2.8	●	+/-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Ridge Church	Ridge	Van Wert	46	1.6	4.8	●	+/-	+/-
Farm, 7824 Boroff Road	Ridge	Van Wert		1.7	2.9	●	+/-	+/-
Quonset Hut, 7871 Boroff Road	Ridge	Van Wert		1.7	3.0	●	+/-	-
House, 8049 Boroff Road	Ridge	Van Wert		1.9	3.1	●	-	-
House, 7927 Stripe Road	Ridge	Van Wert		1.9	2.8	●	+/-	+/-
Marsh Foundation Trustees	Ridge	Van Wert		2.0	2.9	●	+/-	-
Grace United Methodist Church	Jackson, Washington	Van Wert	44	2.4	6.2	●	+/-	+/-
Helen & Catherine Lindsay	Hoaglin	Van Wert		2.4	3.8	●	+/-	-
John Wright House	Ridge	Van Wert		2.5	6.4	●	+/-	+/-
abandoned railroad line	City of Van Wert, Pleasant	Van Wert		2.8	3.6	●	-	-
Young Property, 648 N Washington St	City of Van Wert, Pleasant	Van Wert		2.9	3.8	●	-	-
Young Property, 639 N Washington St	City of Van Wert, Pleasant	Van Wert		3.0	3.8	●	-	-
Van Wert County Historical Museum	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
Greene Property	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
Smith House	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
Phyllis A McCartney House	City of Van Wert, Pleasant	Van Wert		3.1	3.9	●	-	-
Esther Vorpe House	Ridge	Van Wert		3.1	4.0	●	+/-	-
Frances Kline McVay House	City of Van Wert, Pleasant	Van Wert		3.1	4.0	●	-	-
Hamrick Property	City of Van Wert, Pleasant	Van Wert		3.1	4.0	●	-	-
Marsh Foundation School	City of Van Wert, Ridge	Van Wert		3.1	4.0	●	-	-
Chester Hamrick House	City of Van Wert, Pleasant	Van Wert		3.1	4.0	●	-	-
Judge Hiram Clark Glenn's House	City of Van Wert, Pleasant	Van Wert		3.1	4.0	●	-	-
Helen Simmons Family Property	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-
Megry House	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
								● Near-Foreground ● Foreground ● Midground ■ Background
McKeddie House	City of Van Wert, Pleasant	Van Wert		3.2	4.1	●	-	-
James Child & Family	City of Van Wert, Pleasant	Van Wert		3.3	4.1	●	-	-
Orville Reed House	City of Van Wert, Pleasant	Van Wert		3.3	4.1	●	-	-
Helen Hiestand House	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Ellen Reed Cottage	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
St Mark's Evangelical Lutheran Church	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Taylor Carpet	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Collins Fine Foods	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
1010 E Main St, Van Wert	City of Van Wert, Ridge	Van Wert		3.3	4.2	●	-	-
Formerly Rays's Used Furniture	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Frank Hoffman Plbg & Heating	City of Van Wert, Ridge	Van Wert		3.3	4.2	●	-	-
Extension Dept Brumbach Libr	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Sutton Property	City of Van Wert, Pleasant	Van Wert		3.3	4.2	●	-	-
Enbarq Building	City of Van Wert, Pleasant	Van Wert		3.4	4.2	●	-	-
Van Wert Railroad Depot	City of Van Wert, Pleasant	Van Wert		3.4	4.2	●	-	-
National Seal Plant #109	City of Van Wert, Pleasant	Van Wert		3.4	4.2	●	-	-
EJ Evans Bldg	City of Van Wert, Pleasant	Van Wert		3.4	4.2	●	-	-
St James Hotel	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Van Wert Cty Youth Bureau	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Taylor's Floor Covers	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Van Wert Cty Superintndnts Office	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
McGavren Block	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Culligan Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Jerry Luyben Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Richard Schumm	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Alan Jung Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Home Guard Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Ohio Bureau of Employment Services	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Van Wert County Courthouse	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
T and F Office Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Barb's Cash Land	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Baldwin/Johnson/Gehres/Crummy	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Wilkinson Printing	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Pam's School of Dance	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Balyeats Coffee Shop	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Armentrout Hotel/Clark Hotel	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Our Place of Ohio	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
CJA&M Office Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Zeedyk Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Rhythm 'N' Dance Dance Shoppe	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Leo Marks Jewelers; Haines Fashions; Money's Boots	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
American Red Cross Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Barnharts Furniture/Ray Industrial Products	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Brumbach Library	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-

Wild Grains Solar

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Appendix E: Visually Sensitive Resource Analysis

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Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone <div>● Near-Foreground ● Foreground ● Midground ■ Background</div>	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
						PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)	
Union Block	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Masonic Temple	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Dave's Quality Cleaners & VW Raceway	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Sassy Pet	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Mum's Cafe/State Farm Insurance	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Van Wert County Foundation	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Sun Valley Tanning	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
David Zeigler Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Gifts and Things	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Citi Financial	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Razor's Edge/Butler's Bakery	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
ACC Computers	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Ferne A. Wollet Building	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Marsh Hotel	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
G Kenneth Miller Jr House	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
One Court View Law Office	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
County Annex III	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
County Annex II	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
County Annex I	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Hillis Cordell House	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Foote's Gifts & Fabrics	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
First Financial Bank	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
								<div><div></div>● Near-Foreground</div> <div><div></div>● Foreground</div> <div><div></div>● Midground</div> <div><div></div>■ Background</div>
Schaffer House	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
US Post Office Van Wert	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
Williams Antiques & Furniture	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
Arcade Block	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
Years Ago Antique Mall	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
Park Center Development II	City of Van Wert, Pleasant	Van Wert		3.4	4.3	<div><div></div>●</div>	-	-
Park Center Development LLC III	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Scott R. Gordon Atty Building	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Chamber of Commerce	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Park Place	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Don Conn Realty	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Van Wert Bicycle Shop	City of Van Wert, Pleasant	Van Wert		3.5	4.3	<div><div></div>●</div>	-	-
Devin Sheets American Family Insurance	City of Van Wert, Pleasant	Van Wert		3.5	4.4	<div><div></div>●</div>	-	-
Marc-Hill House	City of Van Wert, Pleasant	Van Wert		3.5	4.4	<div><div></div>●</div>	-	-
Time Well Spent Antiques	City of Van Wert, Pleasant	Van Wert		3.5	4.4	<div><div></div>●</div>	-	-
Beneficial Finance of Ohio	City of Van Wert, Pleasant	Van Wert		3.5	4.4	<div><div></div>●</div>	-	-
First United Methodist Church	City of Van Wert, Pleasant	Van Wert		3.5	4.4	<div><div></div>●</div>	-	-
Park Hotel	City of Van Wert, Pleasant	Van Wert		3.6	4.4	<div><div></div>●</div>	-	-
Nationwide Insurance Co	City of Van Wert, Pleasant	Van Wert		3.6	4.4	<div><div></div>●</div>	-	-
Sterrett's Home Equipment	City of Van Wert, Pleasant	Van Wert		3.6	4.5	<div><div></div>●</div>	-	-
ODOT Garage Dist 1	City of Van Wert, Pleasant	Van Wert		3.6	4.5	<div><div></div>●</div>	-	-
410 S Race St, Van Wert	City of Van Wert, Pleasant	Van Wert		3.6	4.5	<div><div></div>●</div>	-	-

Wild Grains Solar

Van Wert County, Ohio

Appendix E: Visually Sensitive Resource Analysis



Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
						PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)	
Castle Convalescent Home	City of Van Wert, Pleasant	Van Wert		3.6	4.5	● Near-Foreground	-	-
Vance Harden House & Music Shop	City of Van Wert, Pleasant	Van Wert		3.6	4.5	● Foreground	-	-
Clyde A & Aldine B Clayton House	City of Van Wert, Pleasant	Van Wert		3.6	4.5	● Midground	-	-
John D & Mary L McVay House	City of Van Wert, Pleasant	Van Wert		3.6	4.5	● Background	-	-
Kathryn Ellen Uncapher House	City of Van Wert, Pleasant	Van Wert		3.7	4.6	●	-	-
John & Victoria Ann Morrow	City of Van Wert, Pleasant	Van Wert		3.7	4.6	●	-	-
Alice Duckwell House	City of Van Wert, Pleasant	Van Wert		3.8	4.6	●	-	-
Paul L Arthur House	City of Van Wert, Pleasant	Van Wert		3.8	4.7	●	-	-
Stephen Sirch House	City of Van Wert, Pleasant	Van Wert		3.8	4.7	●	-	-
James J Hillery House	City of Van Wert, Pleasant	Van Wert		3.8	4.7	●	-	-
Louis L Mrkvicka House	City of Van Wert, Pleasant	Van Wert		3.8	4.7	●	-	-
Mary Albright House	City of Van Wert, Pleasant	Van Wert		3.8	4.7	●	-	-
Joseph Olberding House	City of Van Wert, Pleasant	Van Wert		3.9	4.8	●	-	-
Rebecca Manship House	City of Van Wert, Pleasant	Van Wert		3.9	4.8	●	-	-
Josephine Hawkins House	City of Van Wert, Pleasant	Van Wert		3.9	4.8	●	-	-
Harvey E Albright House	City of Van Wert, Pleasant	Van Wert		3.9	4.8	●	-	-
Richard J Morgan III House	City of Van Wert, Pleasant	Van Wert		4.0	4.9	●	-	-
Fred J Verse House	City of Van Wert, Pleasant	Van Wert		4.0	4.9	●	-	-
Doctor J Stanley Gasebere House	City of Van Wert, Pleasant	Van Wert		4.1	4.9	●	-	-
Presbyterian Church of Middlepoin	Washington	Van Wert		4.2	8.0	●	-	-
Penn Central Depot	Washington	Van Wert		4.3	8.0	●	-	-
Shingle-style House	Washington	Van Wert		4.3	8.0	●	-	-

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Gordon & Hermina Brown House	Washington	Van Wert		4.3	8.1	●	-	-
Lincolnview East Elementary Sc	Washington	Van Wert		4.3	8.0	●	-	-
Van Wert Bandstand	City of Van Wert, Pleasant	Van Wert		4.3	5.2	●	-	-
United Methodist Church	Washington	Van Wert		4.4	8.2	●	-	-
Trinity Evangelical Lutheran C	Washington	Van Wert		4.4	8.1	●	-	-
Interurban Railroad Depot	Washington	Van Wert		4.4	8.1	●	-	-
Raymond van Wynsberghe Jr House	Ridge	Van Wert		4.7	7.1	●	-	-
Alfred & Henry Sherer House	Blue Creek	Paulding		4.8	6.1	●	+/-	-
Historic Bridges								
Wall St. (BIN 8160074)	City of Van Wert, Pleasant	Van Wert		3.0	3.9	●	-	-
County Fairgrounds Pathway (former CR 82)	City of Van Wert, Pleasant	Van Wert		4.5	5.4	●	-	-
OGS Cemeteries								
Grand Victory-Mohr Cemetery	Hoaglin	Van Wert	8	0.0	1.4	●	+/-	+/-
Taylor Cemetery	Union	Van Wert		0.7	1.0	●	+/-	+/-
Dunkard/Duncard Cemetery	Hoaglin	Van Wert	38	1.0	3.3	●	+/-	+/-
Mount Pleasant Cemetery	Hoaglin	Van Wert		1.4	3.7	●	+/-	+/-
Ridge-Ridge Township Cemetery	Ridge	Van Wert		2.2	6.0	●	+	-
Scott-(Oakland) Cemetery	Union	Van Wert		3.1	4.3	●	+/-	-
Mcclure-Dowler Cemetery	Union	Van Wert		3.2	3.7	●	+/-	+/-
Kings-(King) Cemetery	Washington	Van Wert		4.1	8.0	●	+/-	+/-
Woodland Cemetery	Pleasant	Van Wert		4.3	5.1	●	-	-
Dix Cemetery	Pleasant	Van Wert		4.9	5.5	●	+/-	-
Ohio Historical Marker								
2-81 Killing Spree Ends Here in 1948	Hoaglin, Jackson	Van Wert		1.5	4.5	●	+	+/-
4-81 The Brumback Library	City of Van Wert, Pleasant	Van Wert		3.5	4.3	●	-	-
1-81 Hoghe Road Bridge	City of Van Wert, Pleasant	Van Wert		4.5	5.4	●	-	-
Designated Scenic Resources								

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible	+/- Partially Visible
Rivers Designated as National or State Wild, Scenic or Recreational						● Near-Foreground ● Foreground ● Midground ● Background	PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
None in Study Area								
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for Designation as Scenic								
Lincoln Highway Scenic Byway	City of Van Wert, Pleasant, Ridge, Union, Washington	Paulding, Van Wert	46	1.6	4.0	●	+/-	+/-
Other Designated Scenic Resources (Easements, Roads, Districts, and Overlooks)								
None in Study Area								
Public Lands and Recreational Resources								
National Parks, Recreation Areas, Seashores, and Forests								
None in Study Area								
National Natural Landmarks								
None in Study Area								
National Wildlife Refuges								
None in Study Area								
Heritage Areas								
None in Study Area								
State Parks								
None in Study Area								
State Nature Preserves								
None in Study Area								
Wildlife Areas								
None in Study Area								
State Forests								
None in Study Area								
State Fishing/Waterway Access								
None in Study Area								
Other State Lands								
None in Study Area								
Trails								
State and Federal Trails								
No stand-alone state/federal trails were identified. However, state trails occur within (and are evaluated as part of) state lands identified elsewhere in this table.								
Snowmobile/ATV Trails								
None in Study Area								
Bike Trails/Routes								
State Bike Route 44	City of Van Wert, Pleasant, Ridge, Union, Washington	Paulding, Van Wert	46	1.6	4.0	●	+/-	+/-
Other Trails								
None in Study Area								

Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Local Parks and Recreation Areas								
Jubilee Park	City of Van Wert, Pleasant	Van Wert		2.7	3.6	●	+/-	+/-
Bresler Park	Blue Creek, Union	Paulding, Van Wert		3.0	4.2	●	+/-	-
Memorial Park	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-
Fountain Park	City of Van Wert, Pleasant	Van Wert		3.5	4.4	●	-	-
Franklin Park	City of Van Wert, Pleasant	Van Wert		3.6	4.5	●	-	-
Smiley Park	City of Van Wert, Pleasant	Van Wert		3.7	4.5	●	-	-
Middle Point Ball Park	Washington	Van Wert		3.9	7.7	●	-	-
Van Wert County Fairgrounds	City of Van Wert, Pleasant	Van Wert		4.3	5.2	●	-	-
Willow Bend Country Club	City of Van Wert, Pleasant	Van Wert		4.3	5.2	●	-	-
Hiestand Park	City of Van Wert, Pleasant	Van Wert		4.6	5.5	●	-	-
Haviland Park	Blue Creek	Paulding		4.7	6.1	●	+/-	-
Rotary Park	City of Van Wert, Pleasant, Ridge	Van Wert		4.7	5.6	●	-	-
Mumma Park	Blue Creek	Paulding		4.9	6.3	●	+/-	-
Publicly Accessible Conservation Lands/Easements								
None in Study Area								
Rivers and Streams with Public Fishing Access								
Maddox Creek	City of Van Wert, Latty, Hoaglin, Pleasant, Union	Paulding, Van Wert	16	0.0	0.4	●	+/-	+/-
Town Creek	City of Van Wert, Latty, Hoaglin, Jackson, Pleasant, Ridge	Paulding, Van Wert	21, 38	0.0	0.8	●	+/-	+/-
Hoaglin Creek	Latty, Washington, Hoaglin, Pleasant, Union	Paulding, Van Wert		0.1	0.9	●	+/-	+/-
Dog Creek	Washington, Jackson, Ridge, Washington	Paulding, Van Wert		2.4	5.9	●	+/-	+/-
Prairie Creek	Blue Creek, Latty, Washington, Union	Paulding, Van Wert	56	3.2	4.3	●	+/-	+/-

Wild Grains Solar

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Appendix E: Visually Sensitive Resource Analysis



Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)		
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible		
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)	
Little Auglaize River	Washington, Washington	Paulding, Van Wert		4.4	8.2	●	-	-	
Named Lakes, Ponds, and Reservoirs									
Van Wert Reservoir #1	City of Van Wert, Pleasant	Van Wert		4.7	5.6	●	-	-	
High-Use Public Areas									
State, US, and Interstate Highways									
US Hwy 224	City of Van Wert, Hoaglin, Jackson, Pleasant, Ridge	Van Wert	20, 23, 27-29, 52	0.0	1.1	●	+/-	+/-	
US Hwy 127	City of Van Wert, Blue Creek, Latty, Hoaglin, Pleasant, Ridge, Union	Paulding, Van Wert	5, 17	0.0	0.5	●	+/-	+/-	
State Rte 637	Latty, Hoaglin, Jackson	Paulding, Van Wert	40	1.5	4.5	●	+/-	+/-	
US Hwy 30	City of Van Wert, Pleasant, Ridge, Union, Washington	Paulding, Van Wert	52, 59	1.6	3.1	●	+/-	+/-	
State Rte 118	City of Van Wert, Pleasant	Van Wert		3.4	4.3	●	-	-	
State Rte 116	City of Van Wert, Pleasant, Ridge	Van Wert		4.1	5.4	●	+/-	+/-	
State Rte 114	Blue Creek, Latty, Washington	Paulding	56	4.6	6.0	●	+/-	+/-	
State Rte 697	Ridge, Washington	Van Wert		4.7	7.9	●	-	-	
Schools									
Lincolnview Local Schools	Ridge	Van Wert		3.3	5.6	●	-	-	
Van Wert City Schools	City of Van Wert, Pleasant	Van Wert		3.5	4.4	●	-	-	
Cities, Villages, Unincorporated Areas									
Cities and Villages									
City of Van Wert	City of Van Wert, Pleasant, Ridge	Van Wert	47, 48	1.7	2.6	●	+/-	+/-	
Village of Scott	Blue Creek, Hoaglin, Union	Paulding, Van Wert	55	2.2	3.6	●	+/-	+/-	
Village of Middle Point	Ridge, Washington	Van Wert		3.7	7.4	●	+/-	+/-	
Village of Haviland	Blue Creek	Paulding		4.4	5.8	●	+/-	+/-	
Unincorporated Areas									
Cavett	Union	Van Wert		0.8	1.2	●	+/-	+/-	
Hoaglin	Hoaglin	Van Wert	39	1.0	3.5	●	+/-	+/-	

Wild Grains Solar

Van Wert County, Ohio

Appendix E: Visually Sensitive Resource Analysis



Visually Sensitive Resource	Location		VP Number ¹	Distance ²		Distance Zone ● Near-Foreground ● Foreground ● Midground ● Background	Project Visibility (Viewshed Results)	
	Township	County		Miles from Nearest PV Panel	Miles from Collection Substation		+Visible - Not Visible +/- Partially Visible	
							PV Panel DSM Viewshed (Topography, Structures, and Vegetation)	Collection Substation DSM Viewshed (Topography, Structures, and Vegetation)
Wetzel	Jackson	Van Wert	41	3.5	6.4	●	+/-	+/-
Seamersville	Jackson	Van Wert	42	4.1	7.4	●	+/-	+/-
Richey	Pleasant	Van Wert		4.3	4.9	●	+/-	+/-

¹If no viewpoint (VP) number is indicated, no photo was obtained during fieldwork.

²For large areas and linear sites, approximate distance to the nearest Facility component was measured from the respective area's closest point.



**This foregoing document was electronically filed with the Public Utilities
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11/16/2021 12:12:56 PM

in

Case No(s). 21-0823-EL-BGN

Summary: Application Exhibit V - Visual Resource Assessment electronically filed
by Teresa Orahod on behalf of Herrnstein, Kara