#### Telesto Energy Project, LLC Responses to Siting Board Staff's Post-Hearing Request for Information Case No. 2022-00096

Request No. 1:

Provide the Phase I Environmental Assessment.

Response:

For ease of review, please find the Phase I Environmental Site Assessment provided as a separate,

concurrent filing with these responses.

Responding Witness: Chad Martin

#### Telesto Energy Project, LLC Responses to Siting Board Staff's Post-Hearing Request for Information Case No. 2022-00096

### Request No. 2:

Provide any communication or reports generated regarding areas of cultural or historic significance

on the property.

Response:

See attached.

Responding Witness: Chad Martin

# Natural and Cultural Resources Assessment

Telesto Energy Project, LLC Hardin County, Kentucky





### **Document Information**

| Prepared for    | Telesto Energy Project, LLC                             |
|-----------------|---|
| Project Name    | Telesto Solar Natural and Cultural Resources Assessment |
| Project Number  | E319302605  |
| Project Manager | Chad Martin   |
| Date            | October 13, 2022  |

Prepared for:

**Telesto Energy Project, LLC** A wholly-owned subsidiary of 7X Energy, Inc. 3809 Juniper Trace, Suite 100 Austin, Texas 78738

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### Table of Contents

| 1 | Executive Summary1-1 |  |     |  |  |  |  |
|---|----------------------|--|-----|--|--|--|--|
| 2 | Introduction         |  |     |  |  |  |  |
| 3 | Site L               | ocation                                  | 3-1 |  |  |  |  |
|   | 3.1                  | Land Use                                 |     |  |  |  |  |
|   | 3.2                  | Soil Series                              | 3-1 |  |  |  |  |
| 4 | Asses                | ssment Methodology                       | 4-1 |  |  |  |  |
|   | 4.1                  | WOUS Delineation                         | 4-1 |  |  |  |  |
|   |                      | Hydrophytic Vegetation                   | 4-1 |  |  |  |  |
|   |                      | Wetland Hydrology                        | 4-1 |  |  |  |  |
|   |                      | Hydric Soils                             | 4-2 |  |  |  |  |
|   | 4.2                  | Mapping                                  | 4-2 |  |  |  |  |
|   | 4.3                  | Photographs                              | 4-2 |  |  |  |  |
| 5 | Resul                | ts of Findings                           | 5-1 |  |  |  |  |
|   | 5.1                  | Threatened and Endangered Species Review | 5-1 |  |  |  |  |
|   | 5.2                  | Wetlands                                 |     |  |  |  |  |
|   |                      | Vegetation Community Types               | 5-3 |  |  |  |  |
|   |                      | Hydrology                                | 5-3 |  |  |  |  |
|   |                      | Soils                                    | 5-3 |  |  |  |  |
|   | 5.3                  | Waterbodies                              | 5-3 |  |  |  |  |
|   | 5.4                  | Jurisdictional Summary                   | 5-5 |  |  |  |  |
|   | 5.5                  | Sinkholes                                | 5-5 |  |  |  |  |
|   | 5.6                  | Cultural Resources                       | 5-5 |  |  |  |  |
| 6 | Conc                 | lusion and Recommendations               | 6-1 |  |  |  |  |
| 7 | References7-1        |  |     |  |  |  |  |

### Figures

| Figure 2-1 | Project Area Overview                               | .2-3  |
|------------|---|-------|
| Figure 3-1 | Soils within the Project Area                       | . 3-4 |
| Figure 5-1 | Previously Recorded Cultural Resources and Surveys. | . 5-1 |
| Figure 5-2 | 1935 USGS 1:48000 Elizabethtown, Kentucky Map       | . 5-1 |
| Figure 5-3 | 1948 [1953] USGS Cecilia, Kentucky Quadrangle       | . 5-1 |

## Tables

| Table 3-1 | Characteristics of Soil Mapping Units within the Project Area                                 | . 3-2 |
|-----------|---|-------|
| Table 4-1 | Plant Indicator Status Categories   | .4-2  |
| Table 5-1 | IPaC Federally Listed Species and KDFWR T&E Listed Species Potentially<br>Affected by Project | . 5-1 |
| Table 5-2 | Delineated Wetlands   | . 5-2 |

| Table 5-3 | Delineated Streams  | 5-3 |
|-----------|---|-----|
| Table 5.4 | Recorded archeological sites within 1/2 mile of the Project Area  | 5-1 |
| Table 5-5 | Recorded historical resources within 1/2 mile of the Project Area | 5-1 |

### Appendices

- Appendix A Wetland Determination Datasheets
- Appendix B Photographic Log
- Appendix C Project Mapping
- Appendix D Stream Characterization Datasheets

### Acronyms

| CWA   | Clean Water Act                                    |
|-------|--|
| FEMA  | Federal Emergency Management Agency                |
| GIS   | Geographic information systems                     |
| IPaC  | Information for Planning and Consultation          |
| KDFWR | Kentucky Department of Fish and Wildlife Resources |
| KGS   | Kentucky Geological Survey                         |
| KHC   | Kentucky Heritage Council                          |
| KSNCP | Kentucky State Natural Preserve Commission         |
| NHD   | National Hydrography Dataset                       |
| NOI   | Notice of Intent                                   |
| NRCS  | Natural Resources Conservation Service             |
| NRHP  | National Register of Historic Places               |
| NTCHS | National Technical Committee for Hydric Soils      |
| NWP   | Nation Wide Permit                                 |
| NWI   | National Wetland Inventory                         |
| OHWM  | Ordinary High Watermark                            |
| PDOP  | Position Dilution of Precision                     |
| SHPO  | State Historic Preservation Officer                |
| SWPPP | Storm Water Pollution Prevention Plan              |
| T&E   | Threatened and Endangered                          |
| TNW   | Traditionally Navigable Water                      |
| U.S.  | United States                                      |
| USACE | U.S. Army Corps of Engineers                       |
| USDA  | U.S. Department of Agriculture                     |
| USGS  | U.S. Geologic Survey                               |
| USEPA | Environmental Protection Agency                    |
| USFWS | U.S. Fish and Wildlife Service                     |
| WOUS  | Waters of the U.S.                                 |
|       |  |

### 1 Executive Summary

Cardno was contracted by 7X Energy to conduct a natural and cultural resources assessment on multiple properties consisting of 1,806 acres, referenced as the Telesto Energy Project (Project). The Project consists of multiple parcels in Hardin County, Kentucky that were surveyed for wetland and waterbodies as well as other environmental concerns by Cardno from February 23-25, 2021 and a follow up survey on March 23, 2022. The tasks performed as part of this assessment included a review of threatened and endangered (T&E) species, potential cultural resource impacts, and a delineation of potential waters of the United States (WOUS). The methodology, results, and recommendations of the review as it pertains to the Project are contained within and summarized below.

Cardno conducted a threatened and endangered species review during desktop environmental assessments of the Project area. There are three mammal species and three freshwater mussel species listed by the USFWS IPaC and KDFWR as having the potential to occur within or be affected by the Project. No designated critical habitat for listed species exists within the Project area. Cardno inspected all habitats within the Project area for the presence of suitable habitat for listed species. Cardno scientists investigated the area for bat habitat as defined in USFWS 2018 Range-wide Indiana Bat Summer Survey Guidelines (also applicable to Northern Long Eared Bat) during field site assessments. No potential roosting trees (trees with loose bark or hollows) were identified in the wooded areas. Although the NLEB is listed to occur within Hardin County, there are no USFWS identified hibernaculum or roosting trees in the Project site USGS quadrangle (USFWS, 2017). Due to the undisturbed small patches of forested riparian areas and the distance to current summer and winter grounds, it is unlikely that NLEB would be impacted by this Project. Though Cardno scientists did not conduct 'in water' surveys, no mussel relics were identified along their stream banks. West Rhudes Creek flows through the Project area and may contain suitable habitat for listed freshwater mussel species; however, impacts to the creek are not anticipated as a result of the Project.

In compliance with Section 404 of the Clean Water Act (CWA), this report contains a delineation of potential wetland features that may fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Field delineations were performed by Cardno scientists during site visits to the Project from February 23-25, 2021. All potential wetlands identified by the National Wetlands Inventory (NWI) as well as all potential jurisdictional waters identified by the National Hydrography Dataset (NHD) in the Project area during initial desktop evaluations were investigated in the field. Cardno's field investigation was completed during the Navigable Waters Protection Rule published on April 21, 2020 and enacted on June 22, 2020. The final review of data compiled to date was analyzed under the pre-2015 rules and guidelines defined in the Rapanos ruling. Our classification of streams and adjacent wetlands are catalogued accordingly, to the best of our understanding of normal hydraulic conditions at the properties under review.

Cardno scientists identified **14** ephemeral drainages, **three** swales, **eight** intermittent streams, **four** perennial streams, and **27** wetlands, including **9** ponds within the Project area. From the field investigation, it was determined that **twenty-six** of the identified streams, as well as **twenty** of the identified wetlands may possess a hydrological connection to West Rhudes Creek directly and then eventually to the Nolin River, and therefore may likely be considered jurisdictional under USACE guidance. Most of the ephemeral streams did exhibit flow during field investigations but was a direct result of recent precipitation and snow melting. Seven of the excavated ponds appeared to be isolated in nature. It is Cardno's opinion that these drainages/streams and wetlands lack adequate connectivity to a TNW, and would most likely be classified as non-jurisdictional under USACE guidance.

Coordination with the USACE Louisville District Office to obtain an approved jurisdictional determination for the streams and wetlands identified onsite is recommended. There are no regulations or permits that regulate isolated wetlands or non-jurisdictional streams for the state of Kentucky.

If any streams and/or wetlands are deemed 'jurisdictional' by the USACE, the proposed Project could be completed under a Nationwide Permit (NWP) 51, 14, and/or 57. Additionally, the Project would need to develop a Storm Water Pollution Prevention Plan (SWPPP) and provide Notice of Intent (NOI) prior to Project construction. As stated in the text of the NWPs, the discharge of dredged or fill material into wetlands and non-tidal WOUS must not cause the loss of greater than ½-acre of wetlands and non-tidal WOUS, including the loss of no more than 300 linear feet of streambed. If impacts from the construction of the energy generation facility and associated infrastructure including roads, parking lots, stormwater management facilities, and pipelines permanently impact less than ½-acre then the Project may proceed under a NWP. Permanent impacts which exceed the ½-acre threshold for NWPs will require an Individual Permit.

Cardno performed a search for potential sinkhole areas utilizing Geographic Information Systems (GIS) data from the Kentucky Geological Survey (KGS). **No** sinkholes were identified within the Project area.

Cardno's cultural resource specialists reviewed information regarding known archeological and historic sites, as well as prior cultural resources studies, available through the Kentucky Office of State Archaeology and Kentucky Heritage Council (February 2021). Cardno also reviewed USGS topographic maps, current, and historic aerial imagery for evidence of historic use within the Project area. Desktop analysis of the Project area identified ten archaeological surveys and five archaeological sites recorded within approximately 0.5-miles of the Project area. None of these surveys or sites lie within the Project area, but they document the potential for additional unrecorded sites within Project area. Twenty-one surveyed historic structures were identified within approximately 0.5-mile of the Project area, with five of these being located within or directly adjacent to the Project area. The Raymond Addington House and Farm (HD831) that lies directly adjacent to the Project area has been found to meet NRHP criteria but has not yet been sent for listing. In addition to HD831, there is one additional structure, the Heller Hotel, within 0.5 miles of the Project area that is listed on the NRHP. As these are listed resources or will be treated as such by the KY SHPO, effects determinations will need to be made as the development of the project progresses. A review of historic mapping has identified additional historic period resources that have vet to be recorded within the Project area. These resources will have to be recorded and their research and historic value evaluated as the project develops if a federal nexus occurs. Archaeological survey will be constrained to 150-foot buffers of jurisdictional streams potentially affected by the project and requiring federal permits. Standing Structures survey would be constrained to 0.5 mile area surrounding the finalize project footprint.

### 2 Introduction

Cardno was contracted by 7X Energy to perform an assessment for potential listed species habitat, cultural resources, and a preliminary delineation of potential WOUS that exist within the Project area in Hardin County, Kentucky (**Figure 2-1**). The Project consists of approximately 1,806 acres of land that was surveyed by Cardno from February 23-25, 2021 and a follow up survey on March 23, 2022. This report contains a delineation of all resources that potentially fall under the jurisdiction of the USACE.

Cardno conducted desktop investigations to:

- > Review physical characteristics of the Project Area for potential WOTUS, and
- > Identify potential environmental permits that may be required to construct the Project.
- Cardno scientists conducted field delineations within the entire Project area on February 23-25, 2021 and March 23, 2022 to:
- > Delineate the approximate boundaries of potential wetlands and waterbodies within the Project Area, and
- > Document general site conditions.

Cardno evaluated features in the Project Area for potential federal jurisdiction. Cardno's interpretation was made based on available documentation from the US Environmental Protection Agency (USEPA), including guidance titled *Current Implementation of Waters of the United States*, which refers to the original 1986/1988 promulgation and subsequent Supreme Court cases that further defined the term, with the most current definition determined by the 2008 ruling following the *Rapanos v. United States* case (USEPA 2021a).

USACE and USEPA will assert jurisdiction over the following waters:

- > Traditionally navigable water (TNWs),
- > Wetlands adjacent to TNWs,
- > Non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months), and
- > Wetlands that directly abut such tributaries.

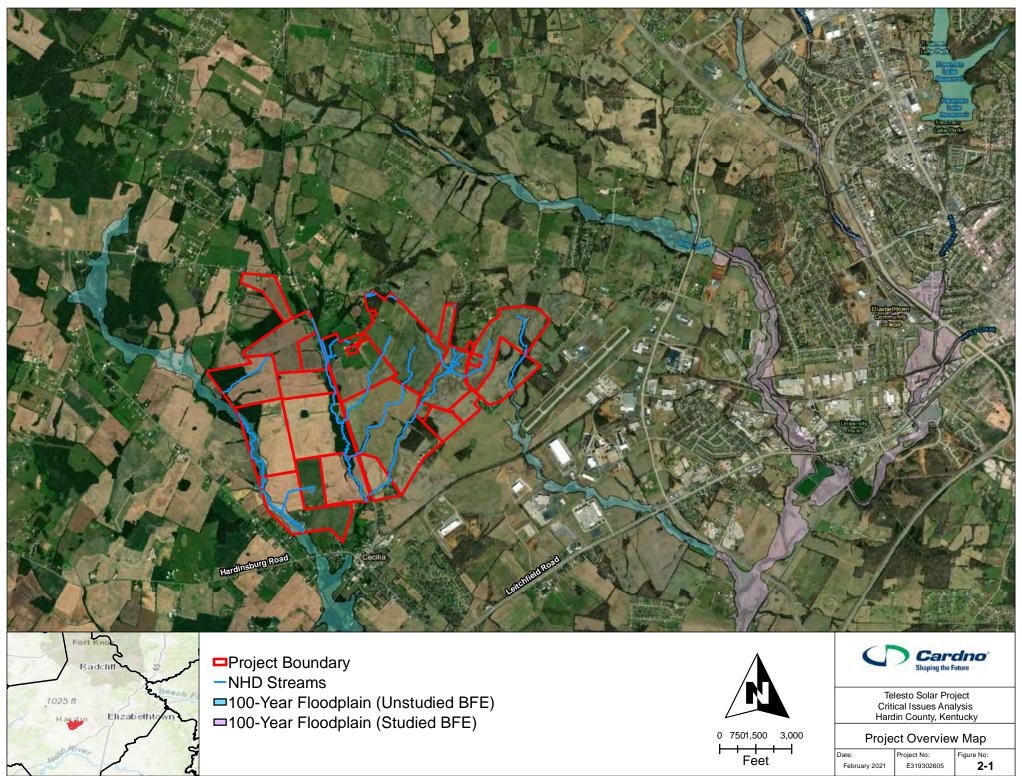
USACE and USEPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- > Non-navigable tributaries that are not relatively permanent,
- > Wetlands adjacent to non-navigable tributaries that are not relatively permanent, and
- > Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

USACE and USEPA generally will not assert jurisdiction over the following features:

- > Swales or erosional features (e.g., gullies or small washes characterized by low volume, infrequent, or short duration flow), and
- > Ditches (including roadside ditches) that are excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The following sections of this report describe the proposed Project location; present the assessment methodology, results of the desktop review and field investigations, and conclusions; and provide the supporting references.



Date Created: 2/10/2021 Date Revised: 2/10/2021 File Path: S:\PROJECTS\7x.Energy\E319302605 - Telesto Solar KY\GIS\Figure 2\_1\_Overview Map.mxd GIS Analyst: justin.stelly

### 3 Site Location

The Project is located in a rural setting in the eastern portion of Hardin County, Kentucky (**Figure 2-1**). According to the United States Environmental Protection Agency (USEPA) Level III and IV Ecoregions of Kentucky map accessed February 2021, the Project area falls within the Mitchell Plain (71b) ecoregion, and consists of Mississippian limestones and is characterized by well developed karst, low relief, and extensive agriculture. Sinkholes, ponds, springs, sinkhole wetlands, subterranean drainage, and dry valleys occur. Stream incision is typically limited except along master streams. Drainage density is lower than in Ecoregions 71a and 71c but higher than in Ecoregions 71e. Mean elevation, relief, and stream gradient are lower than in the lithologically distinct Ecoregions 71a, 71c, and 71g. Potential natural vegetation is a mosaic of bluestem prairie and oak–hickory forest. Today, cropland and pastureland is extensive, mixed oak forests are found on steep slopes, and pin oak, swamp white oak, and sweetgum grow in poorly drained areas. Sinkhole wetlands are common. Water quality has been degraded by municipal effluent, agricultural discharge, and bank erosion following riparian forest removal (Woods et al 2002).

The Project and surrounding areas consists mainly of croplands containing soybeans, cotton, corn, and sorghum. The Addington Field-Elizabethtown Regional Airport is located directly to the east of the Project area and Freeman Lake is located approximately 3.5 miles east of the Project.

#### 3.1 Land Use

The land located within and in proximity to the Project is rural, consisting of mostly agricultural use and with some scattered residential development. The current land use at the Project site is agricultural. There are two natural areas within 10 miles of the Project area. Elizabethtown Nature Park lies 4.25 miles northeast of the northeastern most portion of the project site. Freeman Lake Park is 3.32 miles northeast of the Project area.

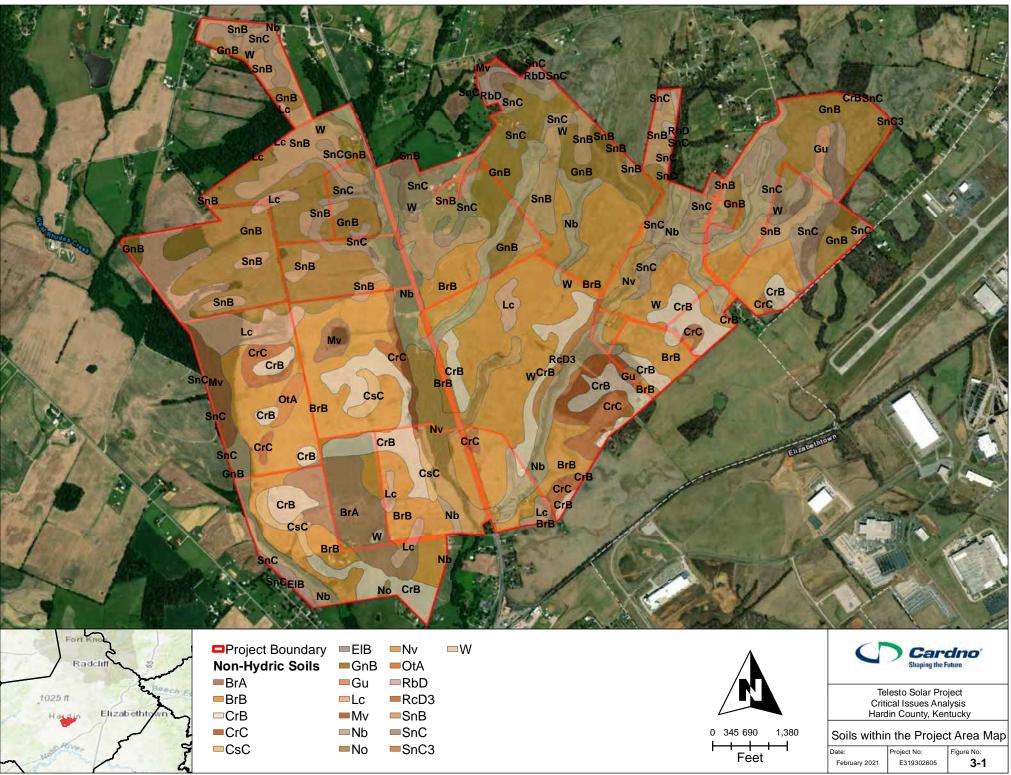
#### 3.2 Soil Series

Soils within the Project can be generally described as well drained to moderately well drained soils that occur on agricultural fields and pastures. According to the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) website (Soil Survey Staff, 2021), the Project is located within 19 soil map units, which are listed below (**Table 3-1 & Figure 3-2**). One of the map units (Mv) within the Project area meet the criteria as described by the National Technical Committee for Hydric Soils (NTCHS).

It should also be noted that caution must be used when comparing the list of hydric components to soil survey maps. Many of the soils on the list have ranges in water table depths that allow the soil component to range from hydric to non-hydric depending on the location of the soil within the landscape as described in the map unit. Lists of hydric soils along with soil survey maps are good off-site ancillary tools to assist in wetland determinations, but they are not a substitute for observations made during onsite investigations.

| Table 3-1 Characteristics of Soil Mapping Units within the Project Area |                |                            |   |                   |                          |                         |
|---|----------------|----------------------------|---|-------------------|--------------------------|-------------------------|
| Soil Name   | Soil<br>Symbol | Drainage Class             | Permeability                            | Surface<br>Runoff | Meets Hydric<br>Criteria | % of<br>Project<br>Area |
| Bedford silt loam<br>(0 to 2 percent<br>slopes)                         | BrA            | Moderately well drained    | Low to<br>Moderately High               | Medium            | No                       | 1.4                     |
| Bedford silt loam<br>(2 to 6 percent<br>slopes)                         | BrB            | Moderately well<br>drained | Low to<br>Moderately High               | Medium            | No                       | 27.6                    |
| Crider silt loam (2<br>to 6 percent<br>slopes)                          | CrB            | Well Drained               | Moderately High<br>to High              | Low               | No                       | 8.8                     |
| Crider silt loam (6<br>to 12 percent<br>slopes)                         | CrC            | Well Drained               | Moderately High<br>to High              | Medium            | No                       | 3.7                     |
| Cumberland silt<br>loam (6 to 12<br>percent slopes)                     | CsC            | Well Drained               | Moderately High<br>to High              | Medium            | No                       | 1.0                     |
| Elk silt loam (2 to<br>6 percent slopes)                                | EIB            | Well Drained               | Moderately High<br>to High              | Low               | No                       | 0.2                     |
| Gatton silt loam<br>(2 to 6 percent<br>slopes)                          | GnB            | Moderately Well<br>Drained | Moderately Low<br>to Moderately<br>High | Low               | No                       | 18.7                    |
| Gullied land<br>(Riney)   | Gu             | Well Drained               | High                                    | Very<br>High      | No                       | 0.4                     |
| Lawrence silt<br>loam (0 to 2<br>percent slopes<br>rarely flooded)      | Lc             | Somewhat<br>Poorly Drained | Moderately Low<br>to Moderately<br>High | Low               | No                       | 4.2                     |
| Melvin silt loam  | Mv             | Poorly Drained             | Moderately high<br>to high              | Very<br>Low       | Yes                      | 1.5                     |
| Newark silt loam<br>(0 to 2 percent<br>slopes frequently<br>flooded)    | Nb             | Somewhat<br>Poorly Drained | Moderately High<br>to High              | N/A               | No                       | 9.3                     |
| Nolin silt loam (0<br>to 2 percent<br>slopes frequently<br>flooded)     | No             | Well drained               | Moderately high<br>to high              | Low               | No                       | 0.1                     |
| Nolin variant<br>(grigsby)  | Nv             | Well Drained               | High                                    | Low               | No                       | 3.5                     |

| Soil Name  | Soil<br>Symbol | Drainage Class             | Permeability                  | Surface<br>Runoff | Meets Hydric<br>Criteria | % of<br>Project<br>Area |
|--|----------------|----------------------------|-------------------------------|-------------------|--------------------------|-------------------------|
| Otwood silt loam<br>(0 to 2 percent<br>slopes rarely<br>flooded)         | OtA            | Moderately Well<br>Drained | Very Low to<br>Moderately Low | Low               | No                       | 0.4                     |
| Riney loam (12 to<br>20 percent<br>slopes)                               | RbD            | Well Drained               | High                          | High              | No                       | 0.5                     |
| Riney sandy clay<br>loam (6 to 20<br>percent slopes<br>severely flooded) | RcD3           | Well Drained               | High                          | High              | No                       | 0.4                     |
| Sonora silt loam<br>(2 to 6 percent<br>slopes)                           | SnB            | Well Drained               | Moderately High<br>to High    | Low               | No                       | 9.3                     |
| Sonora silt loam<br>(6 to 12 percent<br>slopes)                          | SnC            | Well Drained               | Moderately High<br>to High    | Medium            | No                       | 8.9                     |
| Sonora silt loam<br>(6 to 12 percent<br>slopes severely<br>eroded)       | SnC3           | Well Drained               | Moderately High<br>to High    | Medium            | No                       | 0.0                     |
| Water  | W              | -                          |                               | -                 | -                        | 0.1                     |



Date Created: 2/10/2021 Date Revised: 2/10/2021 File Path: S:IPROJECTS\7x.EnergyIE319302605 - Telesto Solar KY\GIS\Figure 3\_1\_SOILS Map.mxd GIS Analyst: justin.stelly

### 4 Assessment Methodology

Cardno conducted desktop reviews of the Project area utilizing local and federal GIS data to identify potential habitat for listed species, wetlands, hydric soils, floodplains, and cultural resources that could affect the Project development process.

Federal and state resources were reviewed as a precursor to field site assessments, to identify potential habitat that may be found for listed species in the Project area. Results of the threatened and endangered species review are provided in **Section 5.1**.

#### 4.1 WOUS Delineation

The delineation of WOUS, including wetlands was conducted during a site visits to the Project from February 23-25, 2021. Cardno scientists performed all wetland delineation surveys in accordance with the USACE Wetland Delineation Manual (USACE Manual; Environmental Laboratory 1987) in conjunction with the Easter Mountains and Piedmont Regional Supplement to the USACE Delineation Manual (USACE 2010). The results of the delineation are provided in **Sections 5.2 and 5.3**.

Wetlands are collectively defined by the USACE (Environmental Laboratory 1987) and the U.S. Environmental Protection Agency (EPA; Federal Register 1980) as those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. An area is a wetland if it meets the wetland hydrology, hydrophytic vegetation, and hydric soil criteria established in the USACE Manual.

Cardno scientists collected all pertinent field data information on USACE Eastern Mountains and Piedmont wetland forms (**Appendix A**).

#### Hydrophytic Vegetation

Hydrophytic vegetation is defined as "the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (Environmental Laboratory 1987). Dominant vegetation was identified and categorized in accordance with the regional indicator status in the national list of plant species that occur in wetlands (Lichvar et. al. 2016). The indicator status of a plant species is expressed in terms of the estimated probability of that species to occur in wetland conditions within a given region. **Table 4-1** lists the plant indicator status categories. A vegetative community would be determined to be hydrophytic if more than 50 percent of the dominant species present were FAC, FACW, or OBL.

#### Wetland Hydrology

Wetland hydrology includes all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively (Environmental Laboratory 1987).

| Table 4-1 Plant Indicator Status Categories |           |   |  |  |  |  |
|---|-----------|---|--|--|--|--|
| Category                                    | Indicator | Frequency of Occurrence in Wetlands (percent)   |  |  |  |  |
| Obligate Wetland<br>Plants                  | OBL       | Plants that occur almost always (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in non-wetlands. Examples: <i>Carya aquatica, Persicarian punctata</i> . |  |  |  |  |
| Facultative Wetland<br>Plants               | FACW      | Plants that occur usually (estimated probability 67-99%) in wetlands, but also occurring in both wetlands and non-wetlands. Examples: <i>Spartina patens; Panicum dichotomiflrum</i> .  |  |  |  |  |
| Facultative Plants                          | FAC       | Plants with a similar likelihood (estimated probability of 33-67%) of occurring in both wetlands and non-wetlands. Examples: <i>Stenotaphrum secundatum; Rumex cripsus</i> .  |  |  |  |  |
| Facultative Upland<br>Plants                | FACU      | Plants that occur sometimes (estimated probability 1-33%) in wetlands,<br>but occur more often (estimated probability 67-99%) in non-wetlands.<br>Examples: <i>Cirsium vulgare; Rubus trivialis.</i>                                    |  |  |  |  |
| Obligate Upland<br>Plants                   | UPL       | Plants that occur rarely (estimated probability <1%) in wetlands, but almost always (>99% estimated probability) in non-wetlands. Examples: <i>Geranium carolinianum</i> .  |  |  |  |  |

#### Hydric Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper stratum. In general, hydric soils are flooded, ponded, or saturated for a week or more during the growing season when soil temperatures are above 32 degrees Fahrenheit. The anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry, and are used to differentiate hydric from non-hydric soils (Environmental Laboratory 1987).

At each recorded data point, a pit up to 20-inches deep was excavated for evaluation. Soils were surveyed for horizon profile, matrix, value, chroma, texture, and concretions.

Hydric soils were determined to be present if one primary hydric soil indicator was present. Background soils information of the Project area was obtained from the USDA NRCS Web Soil Survey.

#### 4.2 Mapping

All wetlands and other water features were recorded using a sub-meter Global Positioning System (GPS) device. The GPS was programmed to record points with a minimum of four satellites and a Position Dilution of Precision (PDOP) value no greater than 6.0. Water features were delineated by collecting GPS points along the perimeter of the wetland or ordinary high water mark with suitable frequency to represent the feature within the Project area.

#### 4.3 Photographs

Photographs are the visual documentation of site conditions as they existed during the field survey. Representative photos were taken at wetland and upland areas. For all other features, a minimum of one photo was taken, unless the area was large and required additional representation. The photographic log is provided in **Appendix B**.

### 5 Results of Findings

#### 5.1 Threatened and Endangered Species Review

Cardno conducted desktop environmental assessments for listed species within the Project area. **Table 5-1** lists the species that were identified by the USFWS IPaC database and the KDFWR as having the potential to occur within or be affected by the Project.

| Group    | Common Name                            | Scientific Name        | Habitat   | Likelihood<br>of<br>Occurrence | Federal<br>Status | State<br>Statu |
|----------|--|------------------------|---|--------------------------------|-------------------|----------------|
|          | Indiana bat <sup>1,2</sup>             | Myotis sodalis         | Caves and mines during<br>winter; large trees with<br>exfoliating bark near<br>riparian areas in<br>summer.   | Moderate                       | E                 | E              |
|          | Northern long-eared bat <sup>1,2</sup> | Myotis septentrionalis | Caves and mines during<br>winter; large trees with<br>exfoliating bark near<br>riparian areas in<br>summer.   | Low                            | Т                 | E              |
| Mammals  | Gray bat <sup>1,2</sup>                | Myotis grisescens      | With rare exceptions,<br>gray bats live in caves<br>year-round. During the<br>winter gray bats<br>hibernate in deep,<br>vertical caves. In the<br>summer, they roost in<br>caves which are<br>scattered along rivers.<br>These caves are in<br>limestone karst areas of<br>the southeastern United<br>States. They do not use<br>houses or barns. | Low                            | E                 | т              |
|          | Snuffbox mussel <sup>1,2</sup>         | Epioblasma triquetra   | Usually found in small to<br>medium-sized creeks,<br>inhabiting areas with a<br>swift current, although it is<br>also found in Lake Erie and<br>some larger rivers.   | Low                            | E                 | E              |
| Mollusks | Clubshell <sup>2</sup>                 | Lampsilis siliquoidea  | This species is known<br>to occur within the<br>Green River   | Low                            | E                 | E              |
|          | Rabbitsfoot <sup>2</sup>               | Theliderma cylindrica  | This species is known<br>to occur within the<br>Green River   | Low                            | Т                 | Т              |

Cardno inspected all habitats within the Project area for the presence of suitable habitat for listed species. Cardno investigated the area for bat habitat as defined in USFWS 2018 Range-wide Indiana Bat Summer Survey Guidelines (also applicable to Northern Long-eared Bat) during field site assessments. No potential roosting trees (trees with loose bark or hollows) were identified in the wooded areas; however, some scattered large diameter trees with crevices do exist sporadically in the small patches of forest within the

facility footprint. Although the NLEB is listed to occur within Hardin County, there are no USFWS identified hibernaculum or roosting trees in the Project site USGS quadrangle (USFWS, 2017). Due to the small patches of forested riparian areas (less than 10-acres), potential tree clearing that would only occur in the non-roosting season (fall), and there are no identified hibernaculum or roosting trees, the Project is not likely to adversely affect the NLEB or Indiana bat.

Though Cardno scientists did not conduct 'in water' surveys and no mussel relics were identified along their stream banks. West Rhudes Creek flows through the Project area and may contain suitable habitat for listed freshwater mussel species; however, impacts to the creek are not anticipated as a result of the Project.

#### 5.2 Wetlands

Cardno scientists investigated the entire Project for wetlands that exhibited the three USACE criteria (hydrophytic vegetation, wetland hydrology, and hydric soils). Cardno's onsite investigations identified **27** wetlands (**Table 5-2**) totaling **42.70** acres. Unconsolidated bottom, herbaceous, scrub-shrub, and forested wetlands were observed within the Project.

| Table 5-2 Delineated Wetlands |        |         |                               |
|-------------------------------|--------|---------|-------------------------------|
| Wetland ID                    | Туре   | Acreage | Potentially<br>Jurisdictional |
| WET-1                         | PFO    | 0.08    | Yes                           |
| WET-2                         | PFO    | 10.46   | Yes                           |
| WET-3                         | PFO    | 1.6     | Yes                           |
| WET-4                         | PEM    | 4.2     | Yes                           |
| WET-5                         | PFO    | 0.93    | Yes                           |
| WET-6                         | PFO    | 1.06    | Yes                           |
| WET-7                         | PFO    | 0.07    | Yes                           |
| WET-8                         | PSS    | 1.92    | Yes                           |
| WET-9                         | PFO    | 5.25    | Yes                           |
| WET-10                        | PUB(x) | 0.41    | No                            |
| WET-11                        | PUB(x) | 0.16    | Yes                           |
| WET-12                        | PFO    | 1.2     | Yes                           |
| WET-13                        | PFO    | 9.76    | Yes                           |
| WET-15                        | PFO    | 0.42    | Yes                           |
| WET-16                        | PSS    | 0.3     | Yes                           |
| WET-17                        | PEM    | 0.12    | Yes                           |
| WET-18                        | PEM    | 0.1     | Yes                           |
| WET-19                        | PUB(x) | 0.19    | Yes                           |
| WET-20                        | PUB(x) | 0.14    | No                            |
| WET-21                        | PUB(x) | 0.21    | No                            |
| WET-22                        | PUB(x) | 0.11    | No                            |

| Table 5-2 Delineated Wetlands |        |         |                               |
|-------------------------------|--------|---------|-------------------------------|
| Wetland ID                    | Туре   | Acreage | Potentially<br>Jurisdictional |
| WET-23                        | PUB(x) | 0.43    | No                            |
| WET-24                        | PUB(x) | 0.26    | No                            |
| WET-25                        | PUB(x) | 0.18    | No                            |
| WET-26                        | PEM    | 0.11    | Yes                           |
| WET-27                        | PSS    | 0.86    | Yes                           |
| WET-28                        | PFO    | 2.15    | Yes                           |
| Total                         |        | 42.70   |                               |
| Total Non-jurisdictional      |        | 1.75    |                               |
| Total Jurisdictional          |        | 40.95   |                               |

#### Vegetation Community Types

Cardno scientists identified three types of wetland vegetative communities within the Project area: herbaceous wetland, scrub-shrub, and forested wetland. Community identification was based on soils, hydrology, and an emphasis on dominant vegetation. **Appendix A** provides datasheets which include survey point-specific vegetative community species data.

#### <u>Hydrology</u>

The entire Project area is relatively well drained by overland flow, drainages, and streams which lead to deeply cut roadside ditches or West Rhudes Creek. Many ag-field drainages were identified by a review of aerial imagery. Cardno scientists inspected these drainages at the time of the onsite investigation, and determined them to be ephemeral in nature.

#### <u>Soils</u>

Soils were delineated with the X-Rite Munsell M50215B Soil Book of Color, and exhibited a hue, lightness, and chroma ranging from 10 YR (3/1) to 10YR (5/6) throughout the Project area. The datasheets presented in **Appendix A** provide soils color data for each soil pit.

#### 5.3 Waterbodies

**Fourteen** ephemeral drainages, **three** swales, **eight** intermittent streams, **four** perennial streams, and **nine** ponded areas (recorded as PUB(x) wetlands above) were identified to be located within the Project boundaries (Table 5-4) (**Appendix C**).

| Table 5-3 Delineated Streams |           |                    |                         |                              |           |  |  |  |  |
|------------------------------|-----------|--------------------|-------------------------|------------------------------|-----------|--|--|--|--|
| Stream ID                    | Flow Type | Stream Length (ft) | Water<br>Depth<br>(In.) | Width at<br>Bankfull<br>(ft) | Substrate | Potentially<br>Jurisdictional<br>(USACE) |  |  |  |
| S-1                          | Perennial | 8063.03            | 6                       | 10.0                         | Rock/Sand | Yes                                      |  |  |  |
| S-2                          | Ephemeral | 6025.1             | 4                       | 5                            | Silt/Sand | Yes                                      |  |  |  |

| Table 5-3 Delineated Streams |              |                       |                         |                              |           |  |  |  |
|------------------------------|--------------|-----------------------|-------------------------|------------------------------|-----------|--|--|--|
| Stream ID                    | Flow Type    | Stream Length (ft)    | Water<br>Depth<br>(In.) | Width at<br>Bankfull<br>(ft) | Substrate | Potentially<br>Jurisdictional<br>(USACE) |  |  |
| S-3                          | Swale        | 618.57                | 1                       | 2                            | Loam      | No                                       |  |  |
| S-4                          | Perennial    | 8886.08               | 5                       | 14                           | Silt/Sand | Yes                                      |  |  |
| S-5                          | Ephemeral    | 4506.98               | 1                       | 6                            | Rock/Sand | Yes                                      |  |  |
| S-6                          | Ephemeral    | 1001.44               | 1                       | 3                            | Loam      | Yes                                      |  |  |
| S-7                          | Intermittent | 140.22                | 3                       | 4                            | Silt/Sand | Yes                                      |  |  |
| S-8                          | Ephemeral    | 1171.53               | 4                       | 5                            | Silt/Sand | Yes                                      |  |  |
| S-9                          | Ephemeral    | 176.73                | 1                       | 3                            | Silt/Sand | Yes                                      |  |  |
| S-10                         | Perennial    | 2326.9                | 10                      | 10                           | Silt/Sand | Yes                                      |  |  |
| S-11                         | Ephemeral    | 1572.18               | 4                       | 7                            | Silt/Sand | Yes                                      |  |  |
| S-12                         | Ephemeral    | 1756.33               | 3                       | 3                            | Silt/Rock | Yes                                      |  |  |
| S-13                         | Intermittent | 196.56                | 4                       | 5                            | Silt/Sand | Yes                                      |  |  |
| S-14<br>(West Rhudes Creek)  | Perennial    | 7177.57               | 8                       | 16                           | Silt/Sand | Yes                                      |  |  |
| S-15                         | Ephemeral    | 172.11                | 1                       | 2                            | Silt/Sand | Yes                                      |  |  |
| S-16                         | Ephemeral    | 1481.37               | 1                       | 3                            | Silt/Sand | Yes                                      |  |  |
| S-17                         | Ephemeral    | 335.81                | 1                       | 6                            | Silt/Sand | Yes                                      |  |  |
| S-18                         | Ephemeral    | 758.61                | 0                       | 2                            | Loam      | Yes                                      |  |  |
| S-19                         | Intermittent | 3293.54               | 2                       | 6                            | Silt/Sand | Yes                                      |  |  |
| S-20                         | Ephemeral    | 956.41                | 0                       | 2                            | Silt/Sand | Yes                                      |  |  |
| S-21                         | Ephemeral    | 2836.18               | 2                       | 4                            | Silt/Sand | Yes                                      |  |  |
| S-21                         | Swale        | 1914.13               | 0                       | 3                            | Loam      | No                                       |  |  |
| S-22                         | Swale        | 1914.13               | 0                       | 3                            | Loam      | No                                       |  |  |
| S-24                         | Ephemeral    |                       | 1                       | 3                            | Loam      | Yes                                      |  |  |
| S-24<br>S-25                 | Intermittent | 1068.6                |                         | 10                           | Silt/Rock |  |  |  |
| S-25                         | Intermittent | 1131.69<br>429.85     | 4                       | 10                           | Silt/Rock | Yes                                      |  |  |
| S-20<br>S-27                 | Intermittent |                       |                         |                              |           |  |  |  |
|                              |              | 2680.57               | 4                       | 4                            | Loam      | Yes                                      |  |  |
| S-28                         | Ephemeral    | 602.99                | 3                       | 3                            | Loam      | Yes                                      |  |  |
| S-29                         | Intermittent | 1481.39               | 3                       | 3                            | Loam      | Yes                                      |  |  |
| Total<br>Total Non-jurisd    | ictional     | 64,188.29<br>3,958.52 |                         |                              |           |  |  |  |
|                              |              |                       |                         |                              |           |  |  |  |
| Total Jurisdict              | ional        | 60,229.77             |                         |                              |           |  |  |  |

#### 5.4 Jurisdictional Summary

Cardno scientists identified 14 ephemeral drainages, three swales, eight intermittent streams, four perennial streams, and 27 wetlands, including 9 ponds within the Project area. From the field investigation, it was determined that twenty-six of the identified streams, as well as twenty of the identified wetlands may possess a hydrological connection to West Rhudes Creek and then Nolin River. Stream segments S-25 and S-26 on the northern extent of the Project flow south into S-10 and then S-4. On the south portion of the Project, S-1 and S-7 flow into S-4, which flows further southwest into S-14 (West Rhudes Creek) and eventually into Nolin River a TNW. S-13 appears to discharge groundwater flow from an agriculture field into West Rhudes Creek. S-19 flows south off of the Project and eventually west into West Rhudes Crees as well. Therefore, it is Cardno's opinion that these delineated streams and associated wetlands may likely be classified as jurisdictional under USACE guidance. The swales did exhibit flow during field investigations due to recent rain events and snow melt. Seven of the excavated ponds appeared to be isolated in nature. It is Cardno's opinion that these drainages/streams and wetlands lack adequate connectivity to a TNW, and would most likely be classified as non-jurisdictional under USACE guidance. Cardno's field investigation was completed during the Navigable Waters Protection Rule published on April 21, 2020 and enacted on June 22, 2020. The final review of data compiled to date was analyzed under the pre-2015 rules and guidelines defined in the Rapanos ruling. Our classification of streams and adjacent wetlands are catalogued accordingly, to the best of our understanding of normal hydraulic conditions at the properties under review

#### 5.5 Sinkholes

Cardno performed a search for potential sinkhole areas utilizing Geographic Information Systems (GIS) data from the Kentucky Geological Survey (KGS). **No** sinkholes were identified within the Project area.

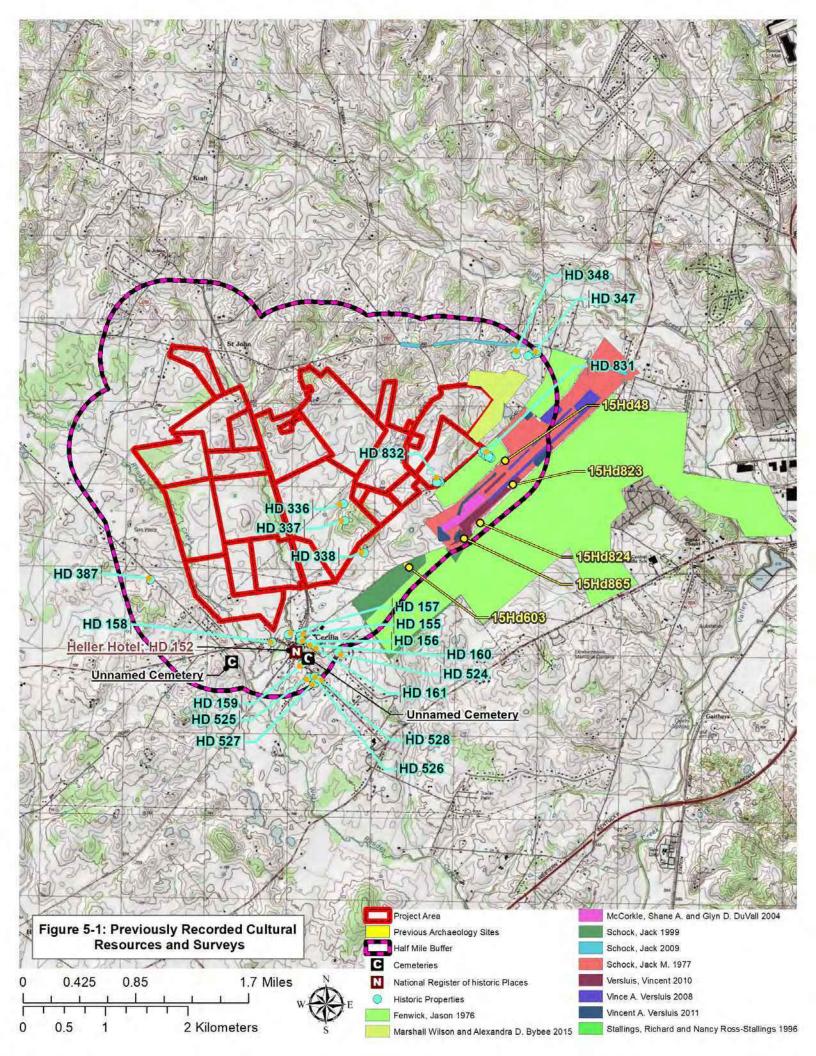
#### 5.6 Cultural Resources

Cardno's cultural resource specialists reviewed information regarding known archaeological and historic sites, as well as prior cultural resources studies, from the Kentucky Heritage Council (KHC) and the Kentucky Office of State Archaeology (KyOSA). We also reviewed the National Register of Historic Places (NRHP) as well as historic USGS topographic maps of the region for evidence of historic use of the proposed Project area.

One NRHP-listed properties (Heller Hotel) is located within 0.5 miles of the Project area (**Figure 5-1**). The Heller Hotel is a two-story gable front plan frame building constructed in the 1890 with Italianate influenced detailing. The hotel served many guests that were commuting on the Elizabethtown and Paducah Railroad from 1890 to 1933.

A review of the State Site Files at KyOSA indicated five previously recorded archaeological sites are located within 0.5 miles of the current project APE (**Figure 5-1; Table 5-4**). These sites include two historic sites (15Hd603 and 15Hd823) and three prehistoric sites (15Hd48; 15Hd824; 15Hd865) (**Table 5-4**). Of these sites, only 15Hd823 is considered eligible for the NRHP but has not been nominated by state historic preservation office (SHPO). None of the previously recorded archaeological sites is located within the current Project area.

The KyOSA GIS database indicates that ten previous cultural resource investigations have been conducted within 0.5 miles of the project area (**Figure 5-1**). None of the previous investigations intersect the current Project area. Two of the previous investigations, Schock 1977 and Stallings and Stallings 1996 include Phase II and III archaeological investigation.



| Site Number | Description                    | Cultural Affiliation                  | National Register Status                      |
|-------------|--------------------------------|---------------------------------------|---|
| 15Hd48      | Open Habitation without Mounds | Undetermined Prehistoric              | Not recorded                                  |
| 15Hd603     | Historic Farm/ Residence       | Historic Euro-American<br>(1851-1900) | Does not presently meet NR criteria           |
| 15Hd823     | Historic Farm/ Residence       | Historic Euro-American<br>(1901-1950) | Considered eligible but not nominated by SHPO |
| 15Hd824     | Open Habitation without Mounds | Undetermined Prehistoric              | Does not presently meet NR criteria           |
| 15Hd865     | Open Habitation without Mounds | Undetermined Prehistoric              | Does not presently meet NR criteria           |

### Table 5.4 Recorded archeological sites within 1/2 mile of the Project Area

The review of KHC records indicated that 21 historic resources lies in 0.5 miles of the Project area (Figure 5-1; Table 5-5). Structures HD152 (Heller Hotel) is on the NRHP. Additionally, HD 347 and HD 831 are farm complexes that meet NRHP criteria but are not yet listed. No evaluation of the remaining resources' eligibility for listing in the NRHP has been made by KHC. Structures HD 337, HD 336, and HD 832 intersect the current Project area. Additional structures HD 338 and HD 831 are located adjacent to the southeastern boundary of the project area.

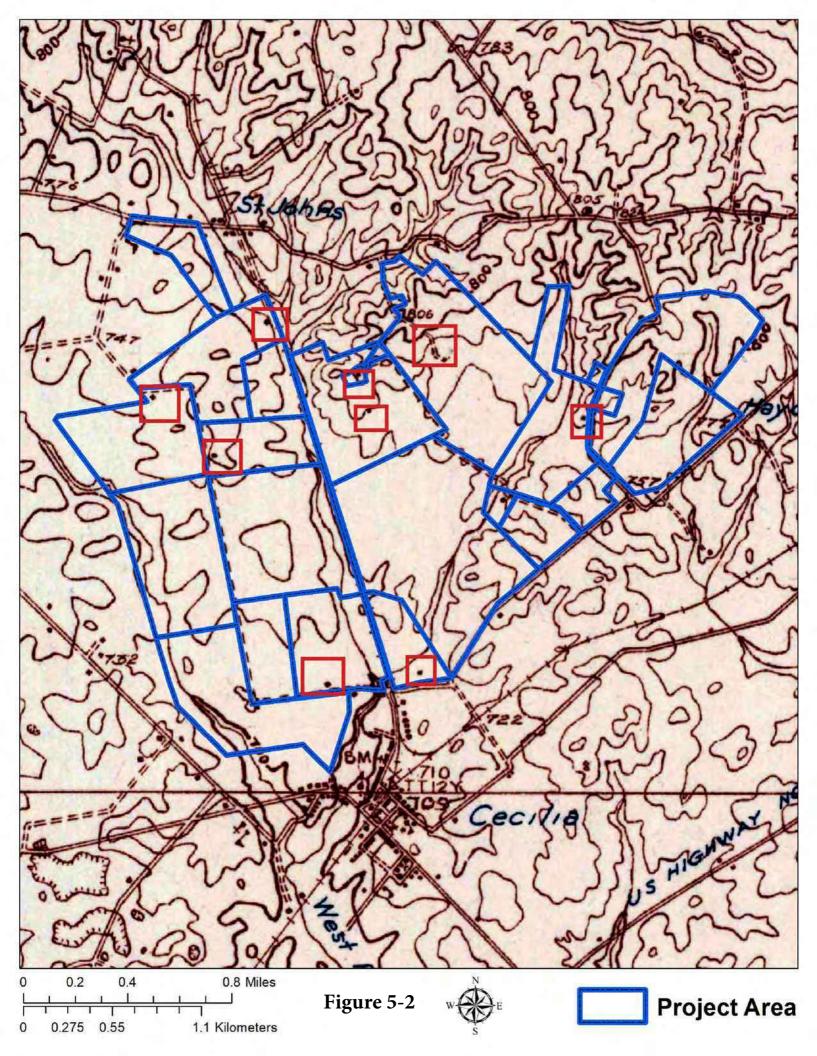
| Survey ID | Historic Name<br>(Common Name) | Date Range | Architecture                  | Function                           | Status            |
|-----------|--------------------------------|------------|-------------------------------|------------------------------------|-------------------|
| HD 152    | Heller Hotel                   | 1875-1899  | Vernacular Turn of<br>Century | Hotel/Inn                          | National Register |
| HD 155    | Cecilian Bank                  | 1900-1924  | Commercial Turn of Century    | Commercial/<br>Professional/Office | Undetermined      |
| HD 156    | John Arvin House               | 1875-1899  | Vernacular Turn of<br>Century | Single Dwelling                    | Undetermined      |
| HD 157    | Cecilia Christian<br>Church    | 1900-1924  | Queen Anne                    | Religious                          | Undetermined      |
| HD 158    | James English<br>House         | 1875-1899  | Vernacular Turn of<br>Century | Single Dwelling                    | Undermined        |
| HD 159    | Bungalow at Cecilia            | 1900-1924  | Craftsman                     | Single Dwelling                    | Undetermined      |
| HD 160    | DR. CZ Aud House               | 1875-1899  | Vernacular Turn of<br>Century | Single Dwelling                    | Undetermined      |
| HD 161    | House                          | 1850-1874  | Greek Revival                 | Single Dwelling                    | Undetermined      |
| HD 336    | Corn Crib                      | 1825-1849  | Vernacular/Antebe<br>Ilum     | Agricultural Buildings             | Undetermined      |

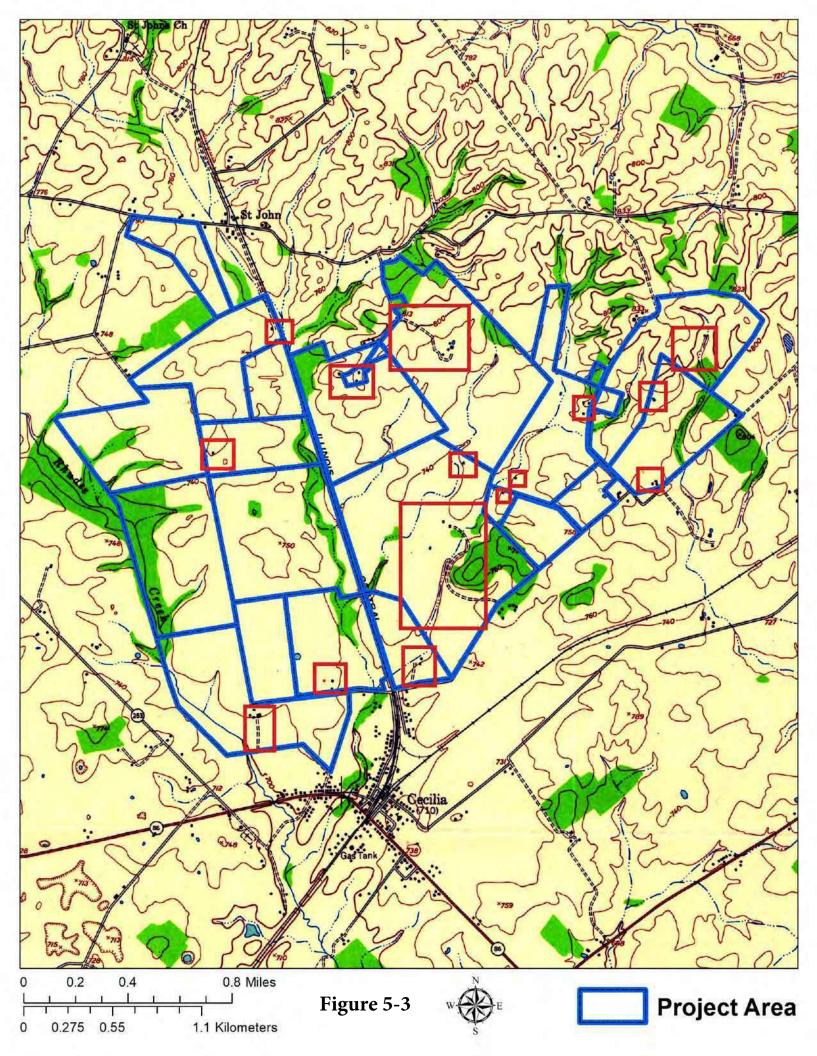
#### Table 5-5 Recorded historical resources within 1/2 mile of the Project Area

| HD 337 | Corn Crib                              | 1875-1899 | Vernacular Turn of<br>Century | Agricultural Buildings  | Undetermined                        |
|--------|--|-----------|-------------------------------|---|-------------------------------------|
| HD 338 | Cabin                                  | 1825-1849 | Vernacular/<br>Antebellum     | Single Dwelling   | Undetermined                        |
| HD 347 | Brown Singleton<br>House and Farm      | 1925-1949 | Colonial Revival              | Single Dwelling;<br>Barns; Domestic<br>Outbuilding                                    | Meets National<br>Register Criteria |
| HD 348 | Corn Crib                              | 1875-1899 | Vernacular Turn of<br>Century | Agricultural Buildings  | Undetermined                        |
| HD 387 | M L White House                        | 1875-1899 | Vernacular Turn of<br>Century | Single Dwelling   | Undetermined                        |
| HD 524 | House                                  | 1825-1949 | N/A                           | Single Dwelling   | Undetermined                        |
| HD 525 | House                                  | 1925-1949 | N/A                           | Single Dwelling   | Undetermined                        |
| HD 526 | St. Ambrose<br>School                  | 1952-1974 | N/A                           | School  | Undetermined                        |
| HD 527 | House                                  | 1925-1949 | N/A                           | Single Dwelling   | Undetermined                        |
| HD 528 | House                                  | 1925-1949 | N/A                           | Single Dwelling   | Undetermined                        |
| HD 831 | Raymond<br>Addington House<br>and Farm | 1950-2000 | Ranch                         | Single Dwelling;<br>Garage; Machine<br>Shed; Dairy Barn;<br>Stock Barn; Grain<br>Silo | Meets National<br>Register Criteria |
| HD 832 | Matherly House<br>and Farm             | 1875-1899 | Greek Revival                 | Single Dwelling;<br>Cistern; Barn; Grain<br>Silo                                      | Undetermined                        |

Historic maps were consulted to investigate the potential for historic structures, roads, cemeteries, etc. to be located within the project APE. The 1935 USGS 1:48000 Elizabethtown quadrangle and the 1948 [1953] USGS 7.5' Cecilia quadrangle maps were reviewed (**Figures 5-2 and 5-3**). **Figure 5-2** depicts the project area on the 1935 USGS 1:48000 Elizabeth quadrangle map and **Figure 5-3** shows the boundary on the 1948 [1953] USGS 7.5' minute Cecilia quadrangle. Both of these maps depict several structures and two-track roads within and adjacent to the Project area. Increased structures are depicted on mapping with time, most likely indicating growth and development of farm complexes in Hardin County, Kentucky.

While there is no statewide cemetery registry in Kentucky, several resources were investigated to identify cemeteries in proximity to the project area. Two historic cemeteries are located within 0.5 miles of the project area (**Figure 5-1**). These cemeteries were identified on the 1960 USGS Cecilia, Kentucky Quadrangle map. None of the cemeteries is located near the Project area.





The review identified five archaeological sites and 10 archaeological surveys having been completed around the Project area, but none of these sites or surveys were located within the Project area. The assessment of the historic mapping indicates at least two historic structures that have been razed in the last 85 years that will more than likely represent unrecorded archaeological sites within the Project area. The review of the standing structures information indicated that 21 resources have been recorded within proximity of the Project area, with only structures HD336, HS337, HD338, HD831, and HD832 lying within or adjacent to the Project area. The majority of these structures has not been assessed for eligibility for the NRHP. The Raymond Addington House and Farm (HD831) has been found to meet NRHP criteria but has not yet been sent for listing. While not listed, the Kentucky SHPO will treat this farm complex as a listed property. In addition to HD831, there is one additional structure, the Heller Hotel, within 0.5 miles of the Project area that is listed on the NRHP. The review of historic mapping indicates at least 10 additional farm complexes that lie within the Project area that have not yet been recorded or evaluated.

Due to the lack of surveys having been conducted within the Project area, and the presence of a potentially significant cultural resources and archaeological sites within proximity of the Project area, it is possible that the Kentucky SHPO will request that a Phase I survey be conducted only within jurisdictional areas of the Project area. An assessment of standing structures would be constrained to a 0.5 mile viewshed of the finalized project footprint, and would be tied to the necessity of obtaining a USACE 404 permit.

### 6 Conclusion and Recommendations

Cardno reviewed current and historic mapping, as well as local, state, and federal GIS data layers as part of a desktop investigation during its environmental assessment. No significant concerns were identified onsite that would affect construction of the proposed Project.

Cardno conducted a threatened and endangered species review during desktop environmental assessments of the Project area. There are three mammal species and three freshwater mussel species listed by the USFWS IPaC and KDFWR as having the potential to occur within or be affected by the Project. No designated critical habitat for listed species exists within the Project area. Cardno inspected all habitats within the Project area for the presence of suitable habitat for listed species. Cardno scientists investigated the area for bat habitat as defined in USFWS 2018 Range-wide Indiana Bat Summer Survey Guidelines (also applicable to Northern Long Eared Bat) during field site assessments. No potential roosting trees (trees with loose bark or hollows) were identified in the wooded areas. Although the NLEB is listed to occur within Hardin County, there are no USFWS identified hibernaculum or roosting trees in the Project site USGS quadrangle (USFWS, 2017). Due to the undisturbed small patches of forested riparian areas and the distance to current summer and winter grounds, it is unlikely that NLEB would be impacted by this Project. Though Cardno scientists did not conduct 'in water' surveys, no mussel relics were identified along their stream banks. West Rhudes Creek flows through the Project area may contain suitable habitat for listed freshwater mussel species, impacts to the creek are not anticipated as a result of the Project.

Cardno scientists identified Cardno scientists identified 14 ephemeral drainages, three swales, eight intermittent streams, four perennial streams, and 27 wetlands, including 9 ponds within the Project area. From the field investigation, it was determined that **twenty-six** of the identified streams, as well as **twenty** of the identified wetlands may possess a hydrological connection to West Rhudes Creek and then Nolin River. Stream segments S-25 and S-26 on the northern extent of the Project flow south into S-10 and then S-4. On the south portion of the Project, S-1 and S-7 flow into S-4, which flows further southwest into S-14 (West Rhudes Creek) and eventually into Nolin River a TNW. S-13 seems to discharge groundwater flow from an agriculture field into West Rhudes Creek. S-19 flows south off of the Project and eventually west into West Rhudes Crees as well. Therefore, it is Cardno's opinion that these delineated streams and associated wetlands may likely be classified as jurisdictional under USACE guidance. The swales did exhibit flow during field investigations due to recent rain events and snow melt. Seven of the excavated ponds appeared to be isolated in nature. It is Cardno's opinion that these drainages/streams and wetlands lack adequate connectivity to a TNW, and would most likely be classified as non-jurisdictional under USACE guidance. Cardno's field investigation was completed during the Navigable Waters Protection Rule published on April 21, 2020 and enacted on June 22, 2020. The final review of data compiled to date was analyzed under the pre-2015 rules and guidelines defined in the Rapanos ruling. Our classification of streams and adjacent wetlands are catalogued accordingly, to the best of our understanding of normal hydraulic conditions at the properties under review.

Because only the USACE may issue determinations on the jurisdictional status of the streams and wetlands identified within the Project, Cardno recommends avoiding these resources to the greatest extent practicable during initial design phases, until a jurisdictional determination has been issued by the USACE Louisville District. If any of the identified streams or wetlands are deemed jurisdictional by the USACE, the Project may proceed under a NWP 51, 14 and/or 57. Nationwide 51 requires a pre-construction notification to the USACE and allows for construction, expansion or modification of land-based renewable energy production facilities, including attendant features. For Electric Utility Line and Telecommunications Activities, each separate and distant crossing of waters of the United States may be covered by its own NWP authorization. If the only activity requiring USACE authorization is the construction, maintenance, repair, and removal of electrical utility lines, then a NWP 57 may be used. As stated in the text of the NWPs,

the discharge of dredged or fill material into wetlands and non-tidal WOUS must not cause the loss of greater than ½-acre of wetlands and non-tidal WOUS, including the loss of no more than 300 linear feet of stream bed. Permanent impacts which exceed the ½-acre threshold for NWPs will require an Individual Permit.

Cardno's cultural resource specialists reviewed information regarding known archeological and historic sites, as well as prior cultural resources studies, available through the Kentucky Office of State Archaeology and Kentucky Heritage Council (February 2021). Cardno also reviewed USGS topographic maps, current, and historic aerial imagery for evidence of historic use within the Project area. Desktop analysis of the Project area identified ten archaeological surveys and five archaeological sites recorded within approximately 0.5-miles of the Project area. None of these surveys or sites lie within the Project area, but they document the potential for additional unrecorded sites within Project area. Twenty-one surveyed historic structures were identified within approximately 0.5-mile of the Project area, with five of these being located within or directly adjacent to the Project area. The Raymond Addington House and Farm (HD831) that lies directly adjacent to the project area has been found to meet NRHP criteria but has not yet been sent for listing. In addition to HD831, there is one additional structure, the Heller Hotel, within 0.5 miles of the project area that is listed on the NRHP. As these are listed resources or will be treated as such by the KY SHPO, effects determinations will need to be made as the development of the project progresses. A review of historic mapping has identified additional historic period resources that have yet been unrecorded within the Project area. These resources will have to be recorded and their research and historic value evaluated as the project develops. Archaeological survey will be constrained to 150 foot buffers of jurisdictional streams potentially affected by the Project. Standing Structures survey would be constrained to 0.5 mile area surrounding the finalize project footprint.

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Telesto Solar Farm Critical Analysis Report

APPENDIX

WETLAND DETERMINATION DATASHEETS

#### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

| Project/Site: Telesto Solar Project                            | City/County:                              | Cecilia/Hardin       | Sampl   | ing Date: 23-Feb-21      |
|--|---|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |   | State: KY            | Sampling Po   | int: D-001               |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Town                             | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                          | ncave, convex, none) | : flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68103                                  | Long.:               | -85.95012   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |   |                      | NWI classification:   | N/A                      |
|  | ear? Yes<br>ly disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" present<br>iin any answers in R |                          |
| Summary of Findings - Attach site map showing s                | ampling po                                | int locations, t     | ransects, impo  | ortant features, etc.    |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes No<br>Yes No<br>Yes No<br>No | Is the Sampled Area Yes $\bigcirc$ No $\bigcirc$ within a Wetland? |
|---|----------------------------------|--|
| Remarks:  |                                  |  |

#### Hydrology

| Wetland Hydrology Indicate                         | ors:                   |            |  | Secondary Indicators (minimum of two required) |
|--|------------------------|------------|--|--|
| Primary Indicators (minimu                         | um of one              | required;  | check all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                        |            | True Aquatic Plants (B14)                          | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                        |            | Hydrogen Sulfide Odor (C1)                         | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                        |            | Oxidized Rhizospheres along Living Roots (C3)      | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                        |            | Presence of Reduced Iron (C4)                      | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                        |            | Recent Iron Reduction in Tilled Soils (C6)         | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                        |            | Thin Muck Surface (C7)                             | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                        |            | Other (Explain in Remarks)                         | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                        |            |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (           | B7)        |  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                      |            |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                        |            |  | FAC-neutral Test (D5)                          |
| Field Observations:                                | $\sim$                 | $\sim$     |  |  |
| Surface Water Present?                             | $Yes \bigcirc$         | No 🖲       | Depth (inches):                                    |  |
| Water Table Present?                               | $_{ m Yes}$ $\bigcirc$ | No 🖲       | Depth (inches):                                    | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes} \bigcirc$  | No 🖲       | Wetland<br>Depth (inches):                         | a Hydrology Present? Yes 🔾 No 🖲                |
|  | ream gau               | ge, monito | ring well, aerial photos, previous inspections), i | f available:                                   |
|  |                        |            |  |  |
| Remarks:   |                        |            |  |  |
| No hydro characteristics.                          |                        |            |  |  |
| -  |                        |            |  |  |
|  |                        |            |  |  |
|  |                        |            |  |  |
|  |                        |            |  |  |
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|  |                        |            |  |  |
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|  |                        |            |  |  |
|  |                        |            |  |  |
|  |                        |            |  |  |
|  |                        |            |  |  |

#### **VEGETATION (Five/Four Strata)- Use scientific names of plants.**

| Species?     Indicator     Dominance Test worksheet:       Tree Stratum     (Plot size:)     Absolute     Rel.Strat.     Indicator       1. Acer nigrum     75     78.9%     FACU     Number of Dominant Species       2. Celtis occidentalis     15     15.8%     FACU     FACU  | (A)         |
|---|-------------|
| Image: Stratum     The stratum       1. Acer nigrum     75       2 Cettis occidentalis     15       15     15.8%  | (A)         |
| 2 Celtis occidentalis 15 15.8% FACU   | (A)         |
|   |             |
| Total Number of Dominant  |             |
| 3. Ulmus americana 5 5.3% FACW Species Across All Strata:   | (B)         |
| 4 <u>0</u> <u>0.0%</u> Demost of deminant Species   |             |
| 5 0 U 0.0% Percent of dominant Species That Are OBL, FACW, or FAC:0.0%  | (A/B)       |
|   |             |
| 7 0   |             |
| 8 0   |             |
| Sapling-Sapling/Shrub Stratum (Plot size:) 95 = Total Cover 0BL species 0 x 1 = 0   |             |
| $\begin{bmatrix} 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$   |             |
| $\begin{array}{c} \hline \hline \\ 2 \\ \hline \\ 2 \\ \hline \\ \end{array} \qquad \begin{array}{c} \hline \\ 0 \\ \hline \\ 0 \\ \hline \\ 0 \\ \hline \\ 0 \\ 0 \\ \hline \\ 0 \\ 0$   |             |
| $\begin{array}{c} 2. \\ 3. \\ \hline \end{array} \qquad \hline 0 \\ \hline 0.0\% \\ \hline \end{array} \qquad \begin{bmatrix} FACU \text{ speciles } \\ 90 \\ \hline 0 \\ $ |             |
| 4 $0$ $0.0\%$ UPL species $0$ x 5 = $0$   |             |
| 4.       0       0.0%       Column Totals: 95       (A) 370   | (B)         |
| 6 0 0.0% Prevalence Index = B/A = 3.895   |             |
| 7   |             |
|   |             |
| 0 $0$ $0$ $0$ $0$ $0$ $0$   |             |
| 3   |             |
| □ Prevalence Index is ≤3.0 <sup>+</sup>   |             |
| Shrub Stratum (Plot size:)  | orting      |
|   | lain)       |
|   | -           |
| 3 $0$ $\square$ 0.0% $\square$ 1 Indicators of hydric soil and wetland hydrolog be present, unless disturbed or problematic.  | gy must     |
|   |             |
| 5 0 O Definition of Vegetation Strata:  |             |
| 6 0 0.0% Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding  | vines 3 in  |
| / (7.6 cm) or more in diameter at breast height (DBH),  |             |
| Herb Stratum (Plot size:) = Total Cover regardless of height.   | waluding    |
| 1.       0.0%       Sapling/shrub stratum – Consists of woody plants, of vines, less than 3 in. DBH and greater than 3.28 ft (1)  |             |
| 2 0 0.0% Herb stratum – Consists of all herbaceous (non-woo   |             |
| 3 0 regardless of size, and all other plants less than 3.2  |             |
| 4 00.0% Woody vines – Consists of all woody vines greater t   | han 3.28 ft |
| 5   |             |
| 6 6 Five Vegetation Strata:   |             |
| 7 0 0.0% Tree - Woody plants, excluding woody vines, approx   | imately 20  |
| 8 ft (6 m) or more in height and 3 in. (7.6 cm) or larger   |             |
| 9 0 0.0% diameter at breast height (DBH).   |             |
| 0       0.0%       Sapling stratum – Consists of woody plants, excluding stratum – Consists stratum – Consists stratum – Consists stratum – Consists stratum  |             |
| 110 than 3 in. (7.6 cm) DBH.  |             |
| $_{0}$   $_{0.0\%}$   Shrub stratum – Consists of woody plants, excludin  | g woody     |
| Vines, approximately 3 to 20 ft (1 to 6 m) in height.         Woody Vine Stratum (Plot size:)   | dv) nlants  |
| 1 0 00% including herbaceous vines, regardless of size, and   | woody       |
| 1.  | ly 3 ft (1  |
|   | ss of       |
| 3.       0       0.0%       Woody vines - Consists of all woody vines, regardle height.         4.       0       0.0%       height.   |             |
|   |             |
| 5 Hydrophytic   |             |
| 6 $0$ $\square$ 0.0% Vegetation Present? Yes $\bigcirc$ No $\textcircled{0}$  |             |
| Remarks: (Include photo numbers here or on a separate sheet.)   |             |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

|                          | •                              | the depth  |  |                                      |                   | nfirm the a            | bsence of indicators.)                                |                                   |  |
|--------------------------|--------------------------------|------------|--|--------------------------------------|-------------------|------------------------|---|-----------------------------------|--|
| Depth<br>(inches)        | <u>Matrix</u><br>Color (moist) | %          | Color (moist)                              | dox Featu<br>%                       | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture   | Remarks                           |  |
| 0-21                     | 10YR 3/3                       | 100        |  |                                      |                   |                        | Loam  | Kemarks                           |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          | ·                              |            |  |                                      |                   | . <u> </u>             |   |                                   |  |
|                          | <u>.</u>                       |            |  |                                      |                   |                        | ,   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  | -                                    |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
| <sup>1</sup> Type: C=Con | centration. D=Depletic         | on. RM=Red | uced Matrix, CS=Covere                     | ed or Coate                          | d Sand Gra        | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma                            | atrix                             |  |
| Hydric Soil              | Indicators:                    |            |  |                                      |                   |                        | Indicators for Proble                                 | matic Hydric Soils <sup>3</sup> : |  |
| Histosol (               | (A1)                           |            | Dark Surface (                             | S7)                                  |                   |                        | 2 cm Muck (A10)                                       | -                                 |  |
| Histic Epi               | pedon (A2)                     |            | Polyvalue Belov                            | w Surface (                          | S8) (MLRA         | 147,148)               | _ ``  | · · · · ·                         |  |
| Black His                | tic (A3)                       |            | Thin Dark Surfa                            | ace (S9) (N                          | ILRA 147, 1       | 48)                    | Coast Prairie Redo<br>(MLRA 147,148)                  | X (A16)                           |  |
| Hydroger                 | n Sulfide (A4)                 |            | Loamy Gleyed                               | Matrix (F2)                          |                   |                        | Piedmont Floodpla                                     | in Soils (F19)                    |  |
| Stratified               | Layers (A5)                    |            | Depleted Matrix                            | x (F3)                               |                   |                        | (MLRA 136, 147)                                       |                                   |  |
| 2 cm Muc                 | ck (A10) (LRR N)               |            | Redox Dark Su                              | rface (F6)                           |                   |                        | Very Shallow Dark                                     | Surface (TF12)                    |  |
| Depleted                 | Below Dark Surface (A          | .11)       | Depleted Dark                              | Depleted Dark Surface (F7)           |                   |                        | Other (Explain in Remarks)                            |                                   |  |
| Thick Dar                | rk Surface (A12)               |            | Redox Depress                              | ions (F8)                            |                   |                        |   | ,                                 |  |
|                          | uck Mineral (S1) (LRR N        | N,         | Iron-Manganes                              | e Masses (                           | F12) (LRR         | Ν,                     |   |                                   |  |
| MLRA 14                  |                                |            | MLRA 136)                                  | (540) (14)                           | <b>D 1 0 1 0</b>  |                        |   |                                   |  |
|                          | eyed Matrix (S4)               |            |  | Umbric Surface (F13) (MLRA 136, 122) |                   |                        | <sup>3</sup> Indicators of hydrophytic vegetation and |                                   |  |
| Sandy Re                 |                                |            | Piedmont Floodplain Soils (F19) (MLRA 148) |                                      |                   |                        | wetland hydrology must be present,                    |                                   |  |
| Stripped                 | Matrix (S6)                    |            | Red Parent Ma                              | terial (F21)                         | (MLRA 12          | 7, 147)                | unless dis  | turbed or problematic.            |  |
| Restrictive I            | ayer (if observed):            |            |  |                                      |                   |                        |   |                                   |  |
| Type:                    |                                |            |  |                                      |                   |                        |   |                                   |  |
| Depth (inc               | hes):                          |            |  |                                      |                   |                        | Hydric Soil Present?                                  | Yes 🔾 No 🖲                        |  |
| Remarks:                 |                                |            |  |                                      |                   |                        |   |                                   |  |
| Reindiks.                |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |
|                          |                                |            |  |                                      |                   |                        |   |                                   |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampli                                     | ing Date: 23-Feb-21          |
|--|------------------|---------------------|--|------------------------------|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poi                               | nt: D-002                    |
| Investigator(s): J. Stelly and C. Hoffman  | Section, Tow     | nship, Range: S     | т  | R                            |
| Landform (hillslope, terrace, etc.):   | Local relief (co | ncave, convex, none | ):   | Slope: $0.0\%$ / $0.0$ °     |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.68035         | Long.:              | -85.95223                                  | Datum: WGS 1984              |
| Soil Map Unit Name: W - Water  |                  |                     | NWI classification:                        | PEM1C                        |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                     | olain in Remarks.)<br>cumstances" present? | , Yes $ullet$ No $ightarrow$ |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | problematic?     | (If needed, expl    | ain any answers in Re                      | emarks.)                     |
| Summary of Findings Attach site man showing s  | ompling po       | int locations       | trancaata imna                             | rtant faaturaa ata           |

| Summary of Findings - | Attach site h | nap snowing | g sampling po | oint locations, | transects, impo | ortant features, e | (C. |
|-----------------------|---------------|-------------|---------------|-----------------|-----------------|--------------------|-----|
|                       |               | <u> </u>    |               |                 |                 |                    | -   |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ()<br>Yes ()<br>Yes () | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\odot$ |
|---|----------------------------|----------------------|---------------------------------------|---------------------------|
| Remarks:  |                            |                      |                                       |                           |
|   |                            |                      |                                       |                           |
|   |                            |                      |                                       |                           |
|   |                            |                      |                                       |                           |

# Hydrology

| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one required; check all that apply)   | Surface Soil Cracks (B6)                       |
| Surface Water (A1) True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)  | Moss Trim Lines (B16)                          |
| Water Marks (B1) Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)   | Crayfish Burrows (C8)                          |
| Drift deposits (B3)  | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  | FAC-neutral Test (D5)                          |
| Field Observations:  |  |
| Surface Water Present? Yes O No O Depth (inches):  |  |
| Water Table Present? Yes No  Depth (inches):   | drology Present? Yes 🔿 No 🖲                    |
| Saturation Present? (includes capillary fringe) Yes No  No  Depth (inches):  | drology Present? Yes 🔾 No 🖲                    |
|  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available          | ailable:                                       |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available          | ailable:                                       |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Remarks: | ailable:                                       |
|  | ailable:                                       |
| Remarks:   | ailable:                                       |

\_

|  |          | Dominant<br>– Species? |           | Sampling Point: D-002   |  |  |  |
|--|----------|------------------------|-----------|---|--|--|--|
|  | Absolute | Rel.Strat.             | Indicator | Dominance Test worksheet:   |  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                  | Status    | Number of Dominant Species  |  |  |  |
| 1  | 0        | 0.0%                   |           | That are OBL, FACW, or FAC: (A)   |  |  |  |
| 2  | -        | 0.0%                   |           | Total Number of Dominant  |  |  |  |
| 3  |          | 0.0%                   |           | Species Across All Strata: (B)  |  |  |  |
| 4  | -        | 0.0%                   |           | Dereent of dominant Species   |  |  |  |
| 5  |          | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  |  |  |  |
| 6  |          | 0.0%                   |           |   |  |  |  |
| 7  |          | 0.0%                   |           | Prevalence Index worksheet:   |  |  |  |
| 8  |          | 0.0%                   |           | Total % Cover of: Multiply by:  |  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover          |           | OBL species $0 \times 1 = 0$  |  |  |  |
| <u></u>  |          | 0.0%                   |           | FACW species $0 \times 2 = 0$   |  |  |  |
| 2  |          | 0.0%                   |           | FAC species $0 \times 3 = 0$  |  |  |  |
| 3.   |          | 0.0%                   |           | FACU species $0 \times 4 = 0$   |  |  |  |
| 4  |          | 0.0%                   |           | UPL species $50 \times 5 = 250$   |  |  |  |
| 5  | -        | 0.0%                   |           | Column Totals: (A) (B)  |  |  |  |
| 6  | -        | 0.0%                   |           | Prevalence Index = B/A = 5.000  |  |  |  |
| 7  | -        | 0.0%                   |           |   |  |  |  |
| 8  |          | 0.0%                   |           | Hydrophytic Vegetation Indicators:  |  |  |  |
| 9  |          | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation   |  |  |  |
| 10.  |          | 0.0%                   |           | $\Box Dominance Test is > 50\%$   |  |  |  |
|  |          | = Total Cover          |           | Prevalence Index is ≤3.0 <sup>-1</sup>  |  |  |  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |  |
| 2  | 0        | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |  |
| 3  |          | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |  |
| 4  |          | 0.0%                   |           | be present, unless disturbed or problematic.  |  |  |  |
| 5  |          | 0.0%                   |           | Definition of Vegetation Strata:  |  |  |  |
| 6  |          | 0.0%                   |           | Four Vegetation Strata:   |  |  |  |
| 7  | 0        | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in  |  |  |  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover          |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |  |
|  | 50       | ✓ 100.0%               | UPL       | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |  |
| 1. Zea mays  | 0        | 0.0%                   | UPL       | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |  |
| 2  | 0        | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |  |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |  |
| 4  | 0        | 0.0%                   |           | in height.  |  |  |  |
| 5  | 0        | 0.0%                   |           |   |  |  |  |
| 6  |          | 0.0%                   |           | Five Vegetation Strata:   |  |  |  |
| 7  |          | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |  |
| 8  |          |                        |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |  |
| 9  | 0        | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody   |  |  |  |
| 10   | 0        |                        |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |  |  |  |
| 11   | 0        |                        |           | Shrub stratum – Consists of woody plants, excluding woody   |  |  |  |
| 12   | 0        | 0.0% 0.0%              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |  |
| <u>Woody Vine Stratum</u> (Plot size:)                     | 50 =     |                        |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |  |
| 1  | 0        | 0.0%                   |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |  |
| 2  | 0        | 0.0%                   |           | m) in height.   |  |  |  |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of  |  |  |  |
| 4  | 0        | 0.0%                   |           | height.   |  |  |  |
| 5  | 0        | 0.0%                   |           | Hydrophytic   |  |  |  |
| 6  | 0        | 0.0%                   |           | Vegetation  |  |  |  |
|  | 0        | = Total Cove           | r         | Present? Yes V No 🛡   |  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |                        |           |   |  |  |  |

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| Profile Descri            | iption: (Describe to              | the depth  | needed to document     | the indic    | ator or co   | nfirm the a           | absence of indicators.)              |                                   |  |  |
|---------------------------|-----------------------------------|------------|------------------------|--------------|--------------|-----------------------|--------------------------------------|-----------------------------------|--|--|
| Depth                     | Matrix                            |            |                        | dox Featu    |              |                       |                                      |                                   |  |  |
| (inches)                  | Color (moist)                     | %          | Color (moist)          | _%           |              | Loc <sup>2</sup>      | Texture                              | Remarks                           |  |  |
| 0-21                      | 10YR 3/3                          | 100        |                        |              |              |                       | Loam                                 |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
| <b>-</b>                  | u U                               |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       | ,                                    |                                   |  |  |
|                           | ·                                 |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           | u                                 |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Redu | uced Matrix, CS=Covere | ed or Coate  | d Sand Gra   | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma           | atrix                             |  |  |
| Hydric Soil I             | ndicators:                        |            |                        |              |              |                       | Indicators for Proble                | matic Hydric Soils <sup>3</sup> : |  |  |
| Histosol (A               | A1)                               |            | Dark Surface (S        | 67)          |              |                       | 2 cm Muck (A10)                      |                                   |  |  |
| Histic Epip               | pedon (A2)                        |            | Polyvalue Belov        | v Surface (  | S8) (MLRA    | 147,148)              |                                      | . ,                               |  |  |
| Black Hist                | ic (A3)                           |            | Thin Dark Surfa        | ace (S9) (M  | LRA 147, 1   | 48)                   | Coast Prairie Redo<br>(MLRA 147,148) | ox (A16)                          |  |  |
| Hydrogen                  | Sulfide (A4)                      |            | Loamy Gleyed           | Matrix (F2)  |              |                       |                                      |                                   |  |  |
|                           | Layers (A5)                       |            | Depleted Matrix        |              |              |                       | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)                   |  |  |
|                           | k (A10) (LRR N)                   |            | Redox Dark Su          |              |              |                       | Very Shallow Dark                    | Surface (TE12)                    |  |  |
|                           | Below Dark Surface (A             | 11)        | Depleted Dark          |              | 7)           |                       |                                      |                                   |  |  |
|                           | k Surface (A12)                   |            | Redox Depress          |              | /            |                       | Other (Explain in                    | Remarks)                          |  |  |
| _                         |                                   |            | Iron-Manganes          |              | F12) (I RR I | N                     |                                      |                                   |  |  |
| MLRA 147                  | ck Mineral (S1) (LRR N<br>7. 148) | ١,         | MLRA 136)              | e masses (   |              | ν,                    |                                      |                                   |  |  |
| _                         | eyed Matrix (S4)                  |            | Umbric Surface         | (F13) (ML    | RA 136, 12   | 2)                    |                                      |                                   |  |  |
| Sandy Gle                 |                                   |            | Piedmont Flood         |              |              |                       | <sup>3</sup> Indicators of I         | nydrophytic vegetation and        |  |  |
|                           |                                   |            | _                      |              |              |                       |                                      | rology must be present,           |  |  |
|                           | Matrix (S6)                       |            | Red Parent Ma          | teriai (F2T) | (IVILRA 12)  | 7, 147)               | unless disturbed or problematic.     |                                   |  |  |
| Restrictive La            | ayer (if observed):               |            |                        |              |              |                       |                                      |                                   |  |  |
| Туре:                     |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
| Depth (incl               | hes):                             |            |                        |              |              |                       | Hydric Soil Present?                 | Yes 🔾 No 🖲                        |  |  |
| Remarks:                  | · •                               |            |                        |              |              |                       |                                      |                                   |  |  |
| Remarks.                  |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |
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|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |  |

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| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampli                | ing Date: 23-Feb-21      |
|--|------------------|---------------------|-----------------------|--------------------------|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poi          | nt: D-003                |
| Investigator(s):   | Section, Tow     | nship, Range: S     | т                     | R                        |
| Landform (hillslope, terrace, etc.): Flat                                  | Local relief (co | ncave, convex, none | ): flat               | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                                       | 37.68135         | Long.:              | -85.95426             | Datum: WGS 1984          |
| Soil Map Unit Name: Nv - Nolin silt loam, 0-2 percent slopes.              |                  |                     | NWI classification:   | N/A                      |
| Are climatic/hydrologic conditions on the site typical for this time of ye | ear? Yes 🖲       | No 🔾 (If no, exp    | lain in Remarks.)     |                          |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant                     | ly disturbed?    | Are "Normal Circ    | umstances" present?   | Yes $ullet$ No $igcup$   |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p                     | problematic?     | (If needed, expl    | ain any answers in Re | emarks.)                 |
|  |                  |                     |                       |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | Yes ●<br>Yes ● | No 🔿<br>No 🔿 | Is the Sampled Area | Yes 💿 No 🔿 |
|---|----------------|--------------|---------------------|------------|
| Wetland Hydrology Present?                              | Yes 🖲          | No O         | within a Wetland?   |            |
| Remarks:  |                |              |                     |            |
| Wet-1   |                |              |                     |            |
|   |                |              |                     |            |
|   |                |              |                     |            |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required) |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)                          | Surface Soil Cracks (B6)                       |
| Surface Water (A1) True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)   | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3                                | ) Moss Trim Lines (B16)                        |
| Water Marks (B1)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   | FAC-neutral Test (D5)                          |
| Field Observations:   |  |
| Surface Water Present? Yes  No Depth (inches):  |  |
| Water Table Present? Yes No  Depth (inches):  | and Hydrology Present? Yes 💿 No 🔿              |
| Saturation Present? (includes capillary fringe) Yes No  No  Depth (inches):                 | and Hydrology Present? Yes $ullet$ No $igcup$  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) | ), if available:                               |
|   |  |
| Remarks:  |  |
| depressional area in corn field.  |  |
|   |  |
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|  |          | Dominant<br>—Species? - |           | Sampling Point: D-003  |  |  |
|--|----------|-------------------------|-----------|--|--|--|
|  | Absolute | Rel.Strat.              | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                         | Status    | Number of Dominant Species   |  |  |
| 1. Acer rubrum   | 60       | ✓ 70.6%                 | FAC       | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis laevigata  | 15       | 17.6%                   | FACW      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          | 11.8%                   | FACW      | Species Across All Strata: (B)   |  |  |
| 4  |          | 0.0%                    |           | Dereent of dominant Species  |  |  |
| 5  |          | 0.0%                    |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |  |  |
| 6  |          | 0.0%                    |           |  |  |  |
| 7  |          | 0.0%                    |           | Prevalence Index worksheet:  |  |  |
| 8  | 0        | 0.0%                    |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = Total Cover           |           | OBL species x 1 =  |  |  |
| 1  | _        | 0.0%                    |           | FACW species x 2 =   |  |  |
| 2.   | •        | 0.0%                    |           | <b>FAC speci es</b> <u>60</u> <b>x 3</b> = <u>180</u>  |  |  |
| 3  |          | 0.0%                    |           | FACU species $0 \times 4 = 0$  |  |  |
| 4.   |          | 0.0%                    |           | UPL species x 5 =  |  |  |
| 5.   |          | 0.0%                    |           | Column Totals: <u>85</u> (A) <u>230</u> (B)  |  |  |
| 6  |          | 0.0%                    |           | Prevalence Index = $B/A = 2.706$   |  |  |
| 7  |          | 0.0%                    |           |  |  |  |
| 8  |          | 0.0%                    |           | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation  |  |  |
| 9.   | _        | 0.0%                    |           |  |  |  |
| 10   |          | 0.0%                    |           | <b>Dominance Test is</b> > 50%   |  |  |
|  |          | = Total Cover           |           | ✓ Prevalence Index is $\leq 3.0^{-1}$  |  |  |
| <u>Shrub Stratum</u> (Plot size:) 1                        |          | 0.0%                    |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |  |  |
| 2  |          | 0.0%                    |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |          | 0.0%                    |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  |          | 0.0%                    |           | be present, unless disturbed or problematic.   |  |  |
|  |          | 0.0%                    |           | Definition of Vegetation Strata:   |  |  |
| 5<br>6   |          | 0.0%                    |           | Four Vegetation Strata:  |  |  |
|  | 0        | 0.0%                    |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |  |  |
| 7  |          | = Total Cover           |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |  |  |
| Herb Stratum (Plot size:)                                  |          |                         |           | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 1  |          | 0.0%                    |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |  |  |
| 2  | 0        | 0.0%                    |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0        | 0.0%                    |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 4  | 0        | 0.0%                    |           | in height.   |  |  |
| 5  | 0        |                         |           |  |  |  |
| 6  | 0        | 0.0%                    |           | Five Vegetation Strata:  |  |  |
| 7  | 0        |                         |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  |          | 0.0%                    |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                 |  |  |
| 9  | 0        | 0.0%                    |           | Sapling stratum – Consists of woody plants, excluding woody  |  |  |
| 10   |          | 0.0%                    |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |  |  |
| 11   |          | 0.0%                    |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
| 12   |          | 0.0%<br>= Total Cover   |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |
| Woody Vine Stratum (Plot size:)                            |          |                         |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0        | 0.0%                    |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1      |  |  |
| 2  | 0        | 0.0%                    |           | m) in height.  |  |  |
| 3  | 0        | 0.0%                    |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 4  | 0        | 0.0%                    |           | height.  |  |  |
| 5  | 0        | 0.0%                    |           | Hydrophytic  |  |  |
| 6  | 0        | 0.0%                    |           | Vegetation   |  |  |
|  | 0        | = Total Cove            | r         | Present? Yes VNO   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |                         |           |  |  |  |

| Profile Desc  | - ·                   | -            |                    |               |               | nfirm the a            | absence of indicators.)          |                                    |  |
|---------------|-----------------------|--------------|--------------------|---------------|---------------|------------------------|----------------------------------|------------------------------------|--|
| Depth         | Matrix                |              |                    | Redox Featu   | 1             |                        | _                                |                                    |  |
| (inches)      | Color (moist)         | %            | Color (moist)      | %             |               | Loc <sup>2</sup>       | Texture                          | Remarks                            |  |
| 0-21          | 10YR 3/1              | 80           | 5YR 4/6            | 20            | C             | M                      | Loam                             |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               | ·                     |              | ·                  |               |               |                        |                                  | ·                                  |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               | u                     |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
| 1 <b>.</b>    |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       | ion. RM=Redu | ced Matrix, CS=Cov | ered or Coat  | ed Sand Gra   | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M        |                                    |  |
| Hydric Soil   |                       |              | Dark Curf          | (67)          |               |                        | Indicators for Proble            | ematic Hydric Soils <sup>3</sup> : |  |
| Histosol (    |                       |              | Dark Surface       |               | (00) (14) 5 4 | 147 140                | 2 cm Muck (A10)                  | (MLRA 147)                         |  |
|               | ipedon (A2)           |              | Polyvalue Be       |               |               |                        | Coast Prairie Red                | ох (А16)                           |  |
| Black His     |                       |              | Thin Dark Su       |               |               | 48)                    | (MLRA 147,148)                   |                                    |  |
|               | n Sulfide (A4)        |              | Loamy Gleye        |               | )             |                        | Piedmont Floodpl                 | ain Soils (F19)                    |  |
|               | Layers (A5)           |              | Depleted Ma        |               |               |                        | (MLRA 136, 147)                  |                                    |  |
| 2 cm Muc      | ck (A10) (LRR N)      |              | Redox Dark         |               |               |                        | Very Shallow Dark Surface (TF12) |                                    |  |
| Depleted      | Below Dark Surface (  | (A11)        | Depleted Da        |               | 7)            |                        | Other (Explain in Remarks)       |                                    |  |
| Thick Date    | rk Surface (A12)      |              | Redox Depre        | essions (F8)  |               |                        |                                  |                                    |  |
| Sandy Mu      | uck Mineral (S1) (LRR | Ν,           | Iron-Mangan        | ese Masses    | (F12) (LRR    | N,                     |                                  |                                    |  |
| MLRA 14       |                       |              | MLRA 136)          | (=            |               |                        |                                  |                                    |  |
| Sandy Gl      | eyed Matrix (S4)      |              |                    |               |               |                        | <sup>3</sup> Indicators of       | hydrophytic vegetation and         |  |
| Sandy Re      | edox (S5)             |              | Piedmont Flo       | odplain Soil  | s (F19) (MLI  | RA 148)                | wetland hyd                      | Irology must be present,           |  |
| Stripped      | Matrix (S6)           |              | Red Parent N       | Material (F21 | ) (MLRA 12    | 7, 147)                |                                  | sturbed or problematic.            |  |
| Restrictive L | _ayer (if observed):  |              |                    |               |               |                        |                                  |                                    |  |
| Type:         |                       |              |                    |               |               |                        |                                  |                                    |  |
| Depth (inc    | hes).                 |              |                    |               |               |                        | Hydric Soil Present?             | Yes 🔍 No 🔾                         |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
| Remarks:      |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
|               |                       |              |                    |               |               |                        |                                  |                                    |  |
| 1             |                       |              |                    |               |               |                        |                                  |                                    |  |

| Project/Site: Telesto Solar Project   | City/County:                | Cecilia/Hardin      | Sampli                                    | ng Date: 23-Feb-21       |
|---|-----------------------------|---------------------|---|--------------------------|
| Applicant/Owner: 7x Energy  |                             | State: KY           | Sampling Poir                             | nt: D-004                |
| Investigator(s):  | Section, Town               | nship, Range: S     | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co            | ncave, convex, none | ): flat                                   | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.6814                     | Long.:              | -85.95444                                 | Datum: WGS 1984          |
| Soil Map Unit Name: Nv - Nolin silt loam, 0-2 percent slopes.   |                             |                     | NWI classification:                       | N/A                      |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significantl | ear? Yes 🖲<br>ly disturbed? |                     | lain in Remarks.)<br>:umstances" present? | Yes  No                  |
| Are Vegetation, Soil, or Hydrology naturally p  | roblematic?                 | (If needed, expl    | ain any answers in Re                     | emarks.)                 |
| Summary of Findings - Attach site map showing sa  | ampling po                  | int locations, t    | transects, impo                           | rtant features, etc.     |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

| Wetland Hydrology Indicators:                                 |  | Secondary Indicators (minimum of two required) |
|---|--|--|
| Primary Indicators (minimum of one required;                  | check all that apply)                                  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  | True Aquatic Plants (B14)                              | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)   | Hydrogen Sulfide Odor (C1)                             | Drainage Patterns (B10)                        |
| Saturation (A3)   | Oxidized Rhizospheres along Living Roots (C3)          | Moss Trim Lines (B16)                          |
| Water Marks (B1)  | Presence of Reduced Iron (C4)                          | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Recent Iron Reduction in Tilled Soils (C6)             | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Thin Muck Surface (C7)                                 | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                       | Other (Explain in Remarks)                             | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)                     |  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                     |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   |  | FAC-neutral Test (D5)                          |
| Field Observations:   |  |  |
| Surface Water Present? Yes O No O                             | Depth (inches):  |  |
| Water Table Present? Yes O No 🖲                               | Depth (inches):  | ydrology Present? Yes 🔿 No 🖲                   |
| Saturation Present?<br>(includes capillary fringe) Yes O No O | Wetland Hy<br>Depth (inches):                          | ydrology Present? Yes 🔾 No 🖲                   |
| Describe Recorded Data (stream gauge, monito                  | pring well, aerial photos, previous inspections), if a | vailable:                                      |
|   |  |  |
| Remarks:  |  |  |
| No hydro characteristics.                                     |  |  |
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|  |          | Sampling Point: D-004 |           |  |
|--|----------|-----------------------|-----------|--|
|  | Absolute | non.otrat.            | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |                       | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 75       | 78.9%                 | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | 15       | 15.8%                 | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          | 5.3%                  | FACW      | Species Across All Strata: (B)   |
| 4  | -        | 0.0%                  |           | Dereent of dominant Species  |
| 5  |          | 0.0%                  |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |
| 6  |          | 0.0%                  |           |  |
| 7  |          |                       |           | Prevalence Index worksheet:  |
| 8  |          | 0.0%                  |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95       | = Total Cove          | r         | OBL species         0         x 1 =         0  |
| 1  | 0        | 0.0%                  |           | FACW species $5 \times 2 = 10$   |
| 2  | _        | 0.0%                  |           | FAC species $0 \times 3 = 0$   |
| 3  | 0        | 0.0%                  |           | FACU species $90 \times 4 = 360$   |
| 4  | 0        | 0.0%                  |           | UPL species $0 \times 5 = 0$   |
| 5  | 0        | 0.0%                  |           | Column Totals:95(A)370(B)  |
| 6  | 0        | 0.0%                  |           | Prevalence Index = B/A =3.895  |
| 7  | 0        | 0.0%                  |           | Hydrophytic Vegetation Indicators:   |
| 8  | 0        | 0.0%                  |           | Rapid Test for Hydrophytic Vegetation  |
| 9  | 0        | 0.0%                  |           | Dominance Test is > 50%  |
| 10   | 0        | 0.0%                  |           | $\square \text{ Prevalence Index is } \leq 3.0^{-1}$   |
| Shrub Stratum (Plot size:)                                 |          | = Total Cove          | r         | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  |          | 0.0%                  |           | data in Remarks or on a separate sheet)  |
| 2  |          | 0.0%                  |           | $\Box$ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 3  |          | 0.0%                  |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                  |           | be present, unless disturbed or problematic.   |
| 5  | 0        | 0.0%                  |           | Definition of Vegetation Strata:   |
| 6  | 0        | 0.0%                  |           | Four Vegetation Strata:  |
| 7  | 0        | 0.0%                  |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |
| Herb Stratum (Plot size:)                                  | 0        | = Total Cove          | r         | regardless of height.  |
| 1  |          | 0.0%                  |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2.   | 0        | 0.0%                  | -         | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3  | 0        | 0.0%                  |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4.   | 0        | 0.0%                  |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5  | 0        | 0.0%                  |           | in height.   |
| 6  | 0        | 0.0%                  |           | Five Vegetation Strata:  |
| 7  | 0        | 0.0%                  |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  | 0        | 0.0%                  |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9  | 0        | 0.0%                  |           | diameter at breast height (DBH).   |
| 10   | 0        | 0.0%                  |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |
| 11   | 0        | 0.0%                  |           | than 3 in. (7.6 cm) DBH.   |
| 12   |          | 0.0%                  |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |
| Woody Vine Stratum (Plot size:)                            |          | = Total Cove          | r         | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1  | 0        | 0.0%                  |           | including herbaceous vines, regardless of size, and woody  |
| 2  | 0        | 0.0%                  |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 3.   |          | 0.0%                  |           | Woody vines – Consists of all woody vines, regardless of   |
| 4  | -        | 0.0%                  |           | height.  |
| 5.   | 0        | 0.0%                  |           |  |
| 6  | 0        | 0.0%                  |           | Hydrophytic<br>Vegetation  |
|  | 0        | = Total Cove          | r         | Present? Yes No •  |
| Remarks: (Include photo numbers here or on a separate shee |          |                       |           | 1  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

| Profile Descri         | ption: (Describe to   | the depth | needed to document          | the indica  | tor or co         | nfirm the a      | absence of indicators.)    |                                    |
|------------------------|-----------------------|-----------|-----------------------------|-------------|-------------------|------------------|----------------------------|------------------------------------|
| Depth -                | Matrix                |           | Rec                         | lox Featur  |                   |                  |                            |                                    |
| (inches)               | Color (moist)         | %         | Color (moist)               | %           | Tvpe <sup>1</sup> | Loc <sup>2</sup> | Texture                    | Remarks                            |
| 0-21                   | 10YR 3/3              | 100       |                             |             |                   |                  | Loam                       |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
| B                      |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  | ,                          |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             | -           |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        | ontration D-Doplatia  | n PM-Podu | icod Matrix, CS-Covoro      | d or Coator | d Sand Gra        | inc 21 ocat      | tion: PL=Pore Lining. M=M  | atrix                              |
|                        |                       |           | iced Matrix, CS=COvere      |             |                   |                  |                            |                                    |
| Hydric Soil Ir         |                       |           |                             |             |                   |                  | Indicators for Proble      | ematic Hydric Soils <sup>3</sup> : |
| Histosol (A            | •                     |           | Dark Surface (S             |             |                   |                  | 2 cm Muck (A10)            | (MLRA 147)                         |
| Histic Epipe           |                       |           | Polyvalue Belov             |             |                   |                  | Coast Prairie Redo         | ox (A16)                           |
| Black Histic           |                       |           | Thin Dark Surfa             |             | LRA 147, 1        | 48)              | (MLRA 147,148)             | . ,                                |
| Hydrogen S             |                       |           | Loamy Gleyed I              |             |                   |                  | Piedmont Floodpl           | ain Soils (F19)                    |
| Stratified L           | •                     |           | Depleted Matrix             |             |                   |                  | (MLRA 136, 147)            |                                    |
| _                      | (A10) (LRR N)         |           | Redox Dark Sur              | . ,         |                   |                  | Very Shallow Darl          | k Surface (TF12)                   |
| · _ ·                  | elow Dark Surface (A  | 11)       | Depleted Dark               |             | )                 |                  | Other (Explain in          | Remarks)                           |
| Thick Dark             | Surface (A12)         |           | Redox Depressi              |             |                   |                  |                            |                                    |
| Sandy Muc<br>MLRA 147, | k Mineral (S1) (LRR N | 1         | Iron-Manganese<br>MLRA 136) | e Masses (F | 12) (LRR I        | Ν,               |                            |                                    |
|                        | •                     |           | Umbric Surface              | (F13) (MLF  | RA 136, 12        | 2)               |                            |                                    |
|                        | ved Matrix (S4)       |           | Piedmont Flood              |             |                   |                  | <sup>3</sup> Indicators of | hydrophytic vegetation and         |
| Sandy Red              |                       |           |                             |             |                   |                  | wetland hyd                | Irology must be present,           |
| Stripped M             | atrix (S6)            |           | Red Parent Mat              | eriai (F21) | (MLRA 12)         | 7, 147)          | uniess di                  | sturbed or problematic.            |
| Restrictive La         | yer (if observed):    |           |                             |             |                   |                  |                            |                                    |
| Туре:                  |                       |           |                             |             |                   |                  |                            |                                    |
| Depth (inch            | es):                  |           |                             |             |                   |                  | Hydric Soil Present?       | Yes 🔾 No 🖲                         |
| Remarks:               |                       |           |                             |             |                   |                  |                            |                                    |
| Romano.                |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |
|                        |                       |           |                             |             |                   |                  |                            |                                    |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Sampli                                   | ng Date: 23-Feb-21       |
|---|------------------|----------------------|--|--------------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Poin                            | nt: D-005                |
| Investigator(s): J. Stelly and C. Hoffman   | Section, Tow     | nship, Range: S      | т  | R                        |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | : flat                                   | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.67884         | Long.:               | -85.9578                                 | Datum: WGS 1984          |
| Soil Map Unit Name: BrB - Bedford silt loam, 2-6 percent slopes.  |                  |                      | NWI classification:                      | PFO1A                    |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       | <b>N</b> 17 1        | lain in Remarks.)<br>umstances" present? | Yes 🖲 No 🔿               |
| Are Vegetation, Soil, or Hydrology naturally p  | problematic?     | (If needed, expla    | ain any answers in Re                    | emarks.)                 |
|   |                  |                      |  |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |
|---------------------------------|-------|------|---------------------|------------|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No 🔾 |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |            |
| Remarks:                        |       |      |                     |            |
| Wet-2                           |       |      |                     |            |
|                                 |       |      |                     |            |
|                                 |       |      |                     |            |

| Wetland Hydrology Indicator                                 | rs:            |               |  | Secondary Indicators (minimum of two required)                  |
|---|----------------|---------------|--|---|
| Primary Indicators (minimur                                 | m of one r     | equired;      | check all that apply)                      | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                |               | True Aquatic Plants (B14)                  | Sparsely Vegetated Concave Surface (B8)                         |
| ✓ High Water Table (A2)                                     |                |               | Hydrogen Sulfide Odor (C1)                 | Drainage Patterns (B10)   |
| Saturation (A3)   |                |               | Oxidized Rhizospheres along Living Roots   | (C3) Moss Trim Lines (B16)                                      |
| ✓ Water Marks (B1)  |                |               | Presence of Reduced Iron (C4)              | Dry Season Water Table (C2)                                     |
| Sediment Deposits (B2)                                      |                |               | Recent Iron Reduction in Tilled Soils (C6) | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                |               | Thin Muck Surface (C7)                     | Saturation Visible on Aerial Imagery (C9)                       |
| Algal Mat or Crust (B4)                                     |                |               | Other (Explain in Remarks)                 | Stunted or Stressed Plants (D1)                                 |
| Iron Deposits (B5)  |                |               |  | Geomorphic Position (D2)  |
| Inundation Visible on Aerial                                | Imagery (E     | 37)           |  | Shallow Aquitard (D3)   |
| ✓ Water-Stained Leaves (B9)                                 |                |               |  | Microtopographic Relief (D4)                                    |
| Aquatic Fauna (B13)   |                |               |  | FAC-neutral Test (D5)   |
| Field Observations:   | -              |               |  |   |
| Surface Water Present?                                      | Yes $\bigcirc$ | No 🖲          | Depth (inches):                            |   |
| Water Table Present?  | Yes 💿          | No $\bigcirc$ | Depth (inches):                            |   |
|   |                |               |  |   |
| Saturation Present?<br>(includes capillary fringe)          |                | No 🖲          | Depth (inches): We                         | etland Hydrology Present? Yes $ullet$ No $igodoldsymbol{	imes}$ |
| (includes capillary fringe)                                 | Yes O          |               | We   |   |
| (includes capillary fringe)                                 | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)                                 | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |
| (includes capillary fringe)<br>Describe Recorded Data (stro | Yes O          |               | Depth (inches):                            |   |

|  |          | Dominant<br>—Species? - |           | Sampling Point: <u>D-005</u>   |
|--|----------|-------------------------|-----------|--|
|  | Absolute | Rel.Strat.              | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |                         | Status    | Number of Dominant Species   |
| 1. Acer rubrum   | 60       | ✓ 70.6%                 | FAC       | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis laevigata  | 15       | 17.6%                   | FACW      | Total Number of Dominant   |
| 3. Ulmus americana   |          | 11.8%                   | FACW      | Species Across All Strata: (B)   |
| 4  |          | 0.0%                    |           | Dereent of dominant Species  |
| 5  |          | 0.0%                    |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |
| 6  |          | 0.0%                    |           |  |
| 7  |          | 0.0%                    |           | Prevalence Index worksheet:  |
| 8  | 0        | 0.0%                    |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = Total Cover           |           | OBL species x 1 =  |
| 1  | _        | 0.0%                    |           | FACW species x 2 =   |
| 2.   | •        | 0.0%                    |           | <b>FAC speci es</b> <u>60</u> <b>x 3</b> = <u>180</u>  |
| 3  |          | 0.0%                    |           | FACU species $0 \times 4 = 0$  |
| 4.   |          | 0.0%                    |           | UPL species x 5 =  |
| 5.   |          | 0.0%                    |           | Column Totals: <u>85</u> (A) <u>230</u> (B)  |
| 6  |          | 0.0%                    |           | Prevalence Index = $B/A = 2.706$   |
| 7  |          | 0.0%                    |           |  |
| 8  |          | 0.0%                    |           | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation  |
| 9.   | _        | 0.0%                    |           |  |
| 10   |          | 0.0%                    |           | <b>Dominance Test is</b> > 50%   |
|  |          | = Total Cover           |           | $\checkmark Prevalence Index is \leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:) 1                        |          | 0.0%                    |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 2  |          | 0.0%                    |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%                    |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                    |           | be present, unless disturbed or problematic.   |
| 5  |          | 0.0%                    |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%                    |           | Four Vegetation Strata:  |
| 7  | 0        | 0.0%                    |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
|  |          | = Total Cover           |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |
| Herb Stratum (Plot size:)                                  |          | _                       |           | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1  |          | 0.0%                    |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  | 0        | 0.0%                    |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0        | 0.0%                    |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4  | 0        | 0.0%                    |           | in height.   |
| 5  | 0        | 0.0%                    |           |  |
| 67   | 0        | 0.0%                    |           | Five Vegetation Strata:  |
| 7  | 0        | 0.0%                    |           | Tree - Woody plants, excluding woody vines, approximately 20 $f(x, m)$ or more in being 2 in (7.6 cm) or lower in              |
| 8  | 0        | 0.0%                    |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                 |
| 9  |          | 0.0%                    |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   |          | 0.0%                    |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11   |          | 0.0%                    |           | Shrub stratum – Consists of woody plants, excluding woody  |
|  |          | = Total Cover           |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size: )                           |          | _                       |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |
| 1  | 0        | 0.0%                    |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  |          | 0.0%                    |           | m) in height.  |
| 3  | 0        | 0.0%                    |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  | 0        | 0.0%                    |           |  |
| 5  | 0        | 0.0%                    |           | Hydrophytic  |
| 6  | 0        | 0.0%                    |           | Vegetation   |
|  | 0        | = Total Cove            | r         | Present? Yes $\bullet$ No $\bigcirc$   |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |                         |           |  |

| Profile Desc | ription: (Describe to   | the depth   | needed to docume    | ent the indi   | cator or co  | nfirm the a           | absence of indicators.)    |   |  |  |
|--------------|-------------------------|-------------|---------------------|----------------|--------------|-----------------------|----------------------------|---|--|--|
| Depth        | Matrix                  |             |                     | Redox Featu    | 1            |                       |                            |   |  |  |
| (inches)     | Color (moist)           | %           | Color (moist)       | %              | Tvpe         | Loc <sup>2</sup>      | Texture                    | Remarks   |  |  |
| 0-21         | 10Y 6/6                 | 85          | 5YR 7/1             | 15             | D            | M                     | Clay Loam                  |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
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|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              | -                       | on. RM=Redu | uced Matrix, CS=Cov | ered or Coat   | ed Sand Gra  | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=N  | latrix  |  |  |
| Hydric Soil  |                         |             |                     |                |              |                       | Indicators for Probl       | ematic Hydric Soils <sup>3</sup> :                  |  |  |
| Histosol     |                         |             | Dark Surface        |                |              |                       | 2 cm Muck (A10)            | ) (MLRA 147)  |  |  |
| _            | ipedon (A2)             |             | Polyvalue Be        | elow Surface   | (S8) (MLRA   | 147,148)              | Coast Prairie Red          |   |  |  |
| Black His    |                         |             | Thin Dark Su        | urface (S9) (I | MLRA 147, 1  | 48)                   | (MLRA 147,148)             | UX (A10)  |  |  |
| Hydroger     | n Sulfide (A4)          |             | Loamy Gleye         | ed Matrix (F2  | !)           |                       | Piedmont Floodp            | lain Soils (F19)                                    |  |  |
| Stratified   | Layers (A5)             |             | Depleted Ma         | atrix (F3)     |              |                       | (MLRA 136, 147)            |   |  |  |
| 2 cm Muc     | ck (A10) (LRR N)        |             | Redox Dark          | Surface (F6)   |              |                       | Verv Shallow Da            | k Surface (TF12)                                    |  |  |
| Depleted     | Below Dark Surface (A   | (11)        | Depleted Da         | rk Surface (F  | 7)           |                       | Other (Explain in Remarks) |   |  |  |
|              | rk Surface (A12)        | ,           | Redox Depre         | essions (F8)   |              |                       |                            | Kemarks)  |  |  |
| _            | uck Mineral (S1) (LRR I | N           | Iron-Mangar         | nese Masses    | (F12) (LRR   | N,                    |                            |   |  |  |
| MLRA 14      | 7, 148)                 | •,          | MLRA 136)           |                |              |                       |                            |   |  |  |
| Sandy Gl     | eyed Matrix (S4)        |             | Umbric Surf         | ace (F13) (M   | LRA 136, 12  | 2)                    | 2                          |   |  |  |
| Sandy Re     |                         |             | Piedmont Fl         | oodplain Soil  | s (F19) (MLF | RA 148)               | <sup>3</sup> Indicators of | hydrophytic vegetation and drology must be present, |  |  |
|              | Matrix (S6)             |             | Red Parent          | Material (F21  | ) (MLRA 12   | 7, 147)               |                            | isturbed or problematic.                            |  |  |
|              |                         |             |                     |                |              | · ·                   |                            |   |  |  |
|              | _ayer (if observed):    |             |                     |                |              |                       |                            |   |  |  |
| Туре:        |                         |             |                     |                |              |                       | Hydric Soil Present?       | Yes 💿 No 🔿  |  |  |
| Depth (inc   | ches):                  |             |                     |                |              |                       | Hydric Soli Fresent:       | Tes S NO C  |  |  |
| Remarks:     |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |
|              |                         |             |                     |                |              |                       |                            |   |  |  |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Sampli                                   | ng Date: 23-Feb-21       |
|---|------------------|----------------------|--|--------------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Poir                            | nt: D-006                |
| Investigator(s): J. Stelly and C. Hoffman   | Section, Tow     | nship, Range: S      | т  | R                        |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | flat                                     | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68266         | Long.:               | -85.96445                                | Datum: WGS 1984          |
| Soil Map Unit Name: Mv - Melvin silt loam.  |                  |                      | NWI classification:                      | PFO1A                    |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       | <b>x</b> 444 F       | lain in Remarks.)<br>umstances" present? | Yes 🔍 No 🔿               |
| Are Vegetation, Soil, or Hydrology naturally p  | problematic?     | (If needed, expla    | ain any answers in Re                    | emarks.)                 |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |
|---------------------------------|-------|------|---------------------|------------|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No 🔾 |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |            |
| Remarks:                        |       |      |                     |            |
| Wet-3                           |       |      |                     |            |
|                                 |       |      |                     |            |
|                                 |       |      |                     |            |

|                             |   | Secondary Indicators (minimum of two required)  |
|-----------------------------|---|---|
| required; check all that ap | ply)  | Surface Soil Cracks (B6)  |
| True Aquation               | Plants (B14)  | Sparsely Vegetated Concave Surface (B8)   |
| Hydrogen S                  | Ilfide Odor (C1)  | Drainage Patterns (B10)   |
| Oxidized Rh                 | zospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Presence of                 | Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Recent Iron                 | Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Thin Muck S                 | urface (C7)   | Saturation Visible on Aerial Imagery (C9)   |
| Other (Expla                | in in Remarks)  | Stunted or Stressed Plants (D1)   |
|                             |   | Geomorphic Position (D2)  |
| 37)                         |   | Shallow Aquitard (D3)   |
|                             |   | Microtopographic Relief (D4)  |
|                             |   | FAC-neutral Test (D5)   |
| 0                           |   |   |
| No O Depth (inc             | nes): <u>6</u>  |   |
| No O Depth (inc             |   | tydrology Present? Yes 💿 No 🔾   |
| No   Depth (inc             | Wetland F   | łydrology Present? Yes ● No 🔾   |
| e, monitoring well, aerial  | photos, previous inspections), if a   | available:  |
|                             |   |   |
|                             |   |   |
|                             |   |   |
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|                             |   |   |
|                             |   |   |
|                             | True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Other (Expla 37) No Depth (incl No Depth (incl No Depth (incl | No ○         Depth (inches):         6           No ○         Depth (inches):         0 |

|  | Dominant<br>Species? |               |           | Sampling Point: D-006  |  |  |
|--|----------------------|---------------|-----------|--|--|--|
|  | Absolute             | Rel.Strat.    | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |               | Status    | Number of Dominant Species   |  |  |
| 1. Acer rubrum   | 60                   | ✓ 70.6%       | FAC       | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis laevigata  | 15                   | 17.6%         | FACW      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |                      | 11.8%         | FACW      | Species Across All Strata: (B)   |  |  |
| 4  | -                    | 0.0%          |           | Dereent of dominant Species  |  |  |
| 5  |                      | 0.0%          |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |  |  |
| 6  |                      | 0.0%          |           |  |  |  |
| 7  |                      | 0.0%          |           | Prevalence Index worksheet:  |  |  |
| 8  | 0                    | 0.0%          |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85                   | = Total Cover |           | OBL species x 1 =  |  |  |
| 1  | -                    | 0.0%          |           | <b>FACW species</b> $25$ <b>x</b> $2 = 50$   |  |  |
| 2.   |                      | 0.0%          |           | <b>FAC speci es</b> <u>60</u> <b>x 3</b> = <u>180</u>  |  |  |
| 3  |                      | 0.0%          |           | FACU species $0 \times 4 = 0$  |  |  |
| 4  | ~                    | 0.0%          |           | UPL species x 5 =  |  |  |
| 5.   |                      | 0.0%          |           | Column Totals:   |  |  |
| 6  |                      | 0.0%          |           | Prevalence Index = B/A = 2.706   |  |  |
| 7  | ~                    | 0.0%          |           |  |  |  |
| 8  |                      | 0.0%          |           | Hydrophytic Vegetation Indicators:   |  |  |
| 9  | _                    | 0.0%          |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 10   |                      | 0.0%          |           | <b><math>\checkmark</math> Dominance Test is &gt; 50%</b>  |  |  |
|  |                      | = Total Cover |           | ✓ Prevalence Index is $\leq$ 3.0 <sup>1</sup>  |  |  |
| <u>Shrub Stratum</u> (Plot size:) 1                        |                      | 0.0%          |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                               |  |  |
| 2  |                      | 0.0%          |           | $\Box$ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3  |                      | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  |                      | 0.0%          |           | be present, unless disturbed or problematic.   |  |  |
| 5  |                      | 0.0%          |           | Definition of Vegetation Strata:   |  |  |
| 6  |                      | 0.0%          |           | Four Vegetation Strata:  |  |  |
| 7  | 0                    | 0.0%          |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),          |  |  |
| Herb Stratum (Plot size:)                                  | 0                    | = Total Cover |           | regardless of height.  |  |  |
|  |                      | 0.0%          |           | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 1  | 0                    | 0.0%          |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants, |  |  |
| 3  | 0                    | 0.0%          |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 5  | 0                    | 0.0%          |           | in height.   |  |  |
| 6  | 0                    | 0.0%          |           |  |  |  |
| 7  | 0                    | 0.0%          |           | Five Vegetation Strata:  |  |  |
| 8  | 0                    | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in          |  |  |
| 9  | 0                    | 0.0%          |           | diameter at breast height (DBH).   |  |  |
|  |                      | 0.0%          |           | Sapling stratum – Consists of woody plants, excluding woody  |  |  |
| 10   |                      | 0.0%          |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |                      | 0.0%          |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
|  |                      | = Total Cover |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |
| Woody Vine Stratum (Plot size:)                            |                      |               |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody       |  |  |
| 1  | 0                    | 0.0%          |           | species, except woody vines, less than approximately 3 ft (1   |  |  |
| 2  |                      | 0.0%          |           | m) in height.  |  |  |
| 3  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |  |  |
| 4  | 0                    | 0.0%          |           |  |  |  |
| 5  | 0                    | 0.0%          |           | Hydrophytic  |  |  |
| 6  | 0                    | 0.0%          |           | Vegetation<br>Present? Yes  No   |  |  |
|  | 0                    | = Total Cove  | r         |  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)                 |               |           |  |  |  |

| Profile Desc   |                       |                 |                          |               |             | nfirm the a      | absence of indicators.)          |                                    |  |
|----------------|-----------------------|-----------------|--------------------------|---------------|-------------|------------------|----------------------------------|------------------------------------|--|
| Depth          | Matrix                |                 |                          | edox Featu    | 1           |                  | _                                |                                    |  |
| (inches)       | Color (moist)         | %               | Color (moist)            | %             |             | Loc <sup>2</sup> | Texture                          | Remarks                            |  |
| 0-21           | 10YR 3/1              | 80              | 5YR 4/6                  | 20            | C           | M                | Loam                             |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                | · ·                   |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                | p                     |                 | p                        |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1.Tumor C. Com | Deplet                | tion DM Dodu    | and Matrix CS. Cau       | mad ar Caat   | ad Sand Cra |                  | tion: DL Doro Lining M M         | atrix                              |  |
| Hydric Soil    |                       | lion. Rivi=Redu |                          |               |             |                  | tion: PL=Pore Lining. M=M        |                                    |  |
| Histosol (     |                       |                 | Dark Surface             | (\$7)         |             |                  | _                                | ematic Hydric Soils <sup>3</sup> : |  |
|                | ipedon (A2)           |                 | Polyvalue Be             | • •           |             | 147 140)         | 2 cm Muck (A10)                  | (MLRA 147)                         |  |
|                |                       |                 |                          |               |             |                  | Coast Prairie Red                | ox (A16)                           |  |
| Black His      |                       |                 | Thin Dark Su             |               |             | 48)              | (MLRA 147,148)                   |                                    |  |
|                | n Sulfide (A4)        |                 | Loamy Gleye              |               | )           |                  | Piedmont Floodpl                 | ain Soils (F19)                    |  |
|                | Layers (A5)           |                 | Depleted Ma              |               |             |                  | (MLRA 136, 147)                  |                                    |  |
|                | ck (A10) (LRR N)      |                 | Redox Dark S             |               |             |                  | Very Shallow Dark Surface (TF12) |                                    |  |
|                | Below Dark Surface    | (A11)           | Depleted Dar             |               | 7)          |                  | Other (Explain in                | Remarks)                           |  |
| Thick Dai      | rk Surface (A12)      |                 | Redox Depre              |               |             |                  |                                  |                                    |  |
| Sandy Mu       | uck Mineral (S1) (LRR | 2 N,            | Iron-Mangan<br>MLRA 136) | ese Masses    | (F12) (LRR  | N,               |                                  |                                    |  |
| MLRA 14        |                       |                 | · · ·                    | (512) (14     |             | 22               |                                  |                                    |  |
|                | eyed Matrix (S4)      |                 | Umbric Surfa             |               |             |                  | <sup>3</sup> Indicators of       | hydrophytic vegetation and         |  |
| Sandy Re       |                       |                 | Piedmont Flo             |               |             |                  | wetland hyd                      | Irology must be present,           |  |
| Stripped       | Matrix (S6)           |                 | Red Parent N             | Naterial (F21 | ) (MLRA 12  | 7, 147)          | unless di                        | sturbed or problematic.            |  |
| Restrictive L  | _ayer (if observed):  | :               |                          |               |             |                  |                                  |                                    |  |
| Type:          | • • •                 |                 |                          |               |             |                  |                                  |                                    |  |
| Depth (inc     | ches):                |                 |                          |               |             |                  | Hydric Soil Present?             | Yes 🔍 No 🔾                         |  |
| Remarks:       |                       |                 |                          |               |             |                  |                                  |                                    |  |
| Remarks:       |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1              |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1              |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1              |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
|                |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1              |                       |                 |                          |               |             |                  |                                  |                                    |  |
| 1              |                       |                 |                          |               |             |                  |                                  |                                    |  |

| Project/Site: Telesto Solar Project   | City/County:              | Cecilia/Hardin      | Sampli                                    | ng Date: 23-Feb-21       |
|---|---------------------------|---------------------|---|--------------------------|
| Applicant/Owner: 7x Energy  |                           | State: KY           | Sampling Poin                             | nt: D-007                |
| Investigator(s):  | Section, Towr             | nship, Range: S     | т   | R                        |
| Landform (hillslope, terrace, etc.):  | Local relief (cor         | ncave, convex, none | ):  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68261                  | Long.:              | -85.96374                                 | Datum: WGS 1984          |
| Soil Map Unit Name: BrB - Bedford silt loam, 2-6 percent slopes.                                      |                           |                     | NWI classification:                       | N/A                      |
|   | ly disturbed?             | Are "Normal Circ    | lain in Remarks.)<br>cumstances" present? |                          |
| Are Vegetation, Soil, or Hydrology naturally pr<br>Summary of Findings - Attach site map showing site | roblematic?<br>ampling po | • • •               | ain any answers in Re                     |                          |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one required; check all that apply)   | Surface Soil Cracks (B6)                       |
| Surface Water (A1) True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)  | Moss Trim Lines (B16)                          |
| Water Marks (B1) Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)   | Crayfish Burrows (C8)                          |
| Drift deposits (B3)  | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  | FAC-neutral Test (D5)                          |
| Field Observations:  |  |
| Surface Water Present? Yes O No O Depth (inches):  |  |
| Water Table Present? Yes No  Depth (inches):   | drology Present? Yes 🔿 No 🖲                    |
| Saturation Present? (includes capillary fringe) Yes No  No  Depth (inches):  | drology Present? Yes 🔾 No 🖲                    |
|  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available          | ailable:                                       |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available          | ailable:                                       |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Remarks: | ailable:                                       |
|  | ailable:                                       |
| Remarks:   | ailable:                                       |

|  |          | Dominant<br>– Species? |                     | Sampling Point: D-007   |  |  |
|--|----------|------------------------|---------------------|---|--|--|
|  | Absolute | Rel.Strat.             | Indicator<br>Status | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                  | Status              | Number of Dominant Species  |  |  |
| 1  | 0        | 0.0%                   |                     | That are OBL, FACW, or FAC: (A)   |  |  |
| 2  | -        | 0.0%                   |                     | Total Number of Dominant  |  |  |
| 3  |          | 0.0%                   |                     | Species Across All Strata: (B)  |  |  |
| 4  | -        | 0.0%                   |                     | Dereent of dominant Species   |  |  |
| 5  |          | 0.0%                   |                     | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  |  |  |
| 6  |          | 0.0%                   |                     |   |  |  |
| 7  |          | 0.0%                   |                     | Prevalence Index worksheet:   |  |  |
| 8  |          | 0.0%                   |                     | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover          |                     | OBL species $0 \times 1 = 0$  |  |  |
| <u></u>  |          | 0.0%                   |                     | FACW species $0 \times 2 = 0$   |  |  |
| 2  |          | 0.0%                   |                     | FAC species $0 \times 3 = 0$  |  |  |
| 3.   |          | 0.0%                   |                     | FACU species $0 \times 4 = 0$   |  |  |
| 4  |          | 0.0%                   |                     | UPL species $50 \times 5 = 250$   |  |  |
| 5  | -        | 0.0%                   |                     | Column Totals: (A) (B)  |  |  |
| 6  | -        | 0.0%                   |                     | Prevalence Index = B/A = 5.000  |  |  |
| 7  | -        | 0.0%                   |                     |   |  |  |
| 8  |          | 0.0%                   |                     | Hydrophytic Vegetation Indicators:  |  |  |
| 9  |          | 0.0%                   |                     | Rapid Test for Hydrophytic Vegetation   |  |  |
| 10.  |          | 0.0%                   |                     | $\Box Dominance Test is > 50\%$   |  |  |
|  |          | = Total Cover          |                     | Prevalence Index is ≤3.0 <sup>-1</sup>  |  |  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                   |                     | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 2  | 0        | 0.0%                   |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3  |          | 0.0%                   |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4  |          | 0.0%                   |                     | be present, unless disturbed or problematic.  |  |  |
| 5  |          | 0.0%                   |                     | Definition of Vegetation Strata:  |  |  |
| 6  |          | 0.0%                   |                     | Four Vegetation Strata:   |  |  |
| 7  | 0        | 0.0%                   |                     | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover          |                     | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |
|  | 50       | ✓ 100.0%               | UPL                 | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1. Zea mays  | 0        | 0.0%                   | UPL                 | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2  | 0        | 0.0%                   |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0        | 0.0%                   |                     | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4  | 0        | 0.0%                   |                     | in height.  |  |  |
| 5  | 0        | 0.0%                   |                     |   |  |  |
| 6  |          | 0.0%                   |                     | Five Vegetation Strata:   |  |  |
| 7  |          | 0.0%                   |                     | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  |          |                        |                     | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9  | 0        | 0.0%                   |                     | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10   | 0        | 0.0%                   |                     | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |  |  |
| 11   | 0        |                        |                     | Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12   | <br>50 = | 0.0% 0.0%              |                     | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                            |          |                        |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0        | 0.0%                   |                     | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2  | 0        | 0.0%                   |                     | m) in height.   |  |  |
| 3  | 0        | 0.0%                   |                     | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  | 0        | 0.0%                   |                     | height.   |  |  |
| 5  | 0        | 0.0%                   |                     | Hydrophytic   |  |  |
| 6  | 0        | 0.0%                   |                     | Vegetation  |  |  |
|  | 0        | = Total Cove           | r                   | Present? Yes V No 🛡   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |                        |                     |   |  |  |

ep

|                      |                                    | the depth | needed to document         |                    |                                 | assence of indicators.                      |   |
|----------------------|------------------------------------|-----------|----------------------------|--------------------|---------------------------------|---|---|
| Depth<br>(inches)    | <u>Matrix</u><br>Color (moist)     | %         | Color (moist)              | lox Features<br>   | e <sup>1</sup> Loc <sup>2</sup> | Texture                                     | Remarks   |
| 0-21                 | 10YR 3/3                           | 100       |                            | <u>761VL</u>       |                                 | Loam  | Reindiks  |
| 0-21                 |                                    |           |                            | ·                  |                                 |   |   |
|                      |                                    |           |                            |                    |                                 | ,   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      | ·                                  |           |                            |                    |                                 |   |   |
|                      |                                    | - <u></u> |                            | ·                  |                                 |   |   |
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|                      | ·                                  |           |                            |                    |                                 | ,,  |   |
|                      |                                    |           |                            | ·                  |                                 |   |   |
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|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    | n. RM=Red | uced Matrix, CS=Covere     | d or Coated San    | d Grains <sup>2</sup> Loca      | tion: PL=Pore Lining. M=Ma                  | itrix   |
|                      | Indicators:                        |           |                            | \ <b>۲</b> \       |                                 | Indicators for Proble                       | matic Hydric Soils <sup>3</sup> :                     |
| Histosol (           |                                    |           | Dark Surface (S            |                    |                                 | 2 cm Muck (A10)                             | (MLRA 147)  |
|                      | pedon (A2)                         |           |                            | v Surface (S8) (N  |                                 | Coast Prairie Redo                          | x (A16)   |
| Black Hist           |                                    |           |                            | ice (S9) (MLRA 1   | 47, 148)                        | (MLRA 147,148)                              | · · · /   |
| 5 0                  | Sulfide (A4)                       |           | Loamy Gleyed I             |                    |                                 | Piedmont Floodpla                           | in Soils (F19)  |
|                      | Layers (A5)                        |           | Depleted Matrix            |                    |                                 | (MLRA 136, 147)                             |   |
| 2 cm Muc             | k (A10) (LRR N)                    |           | Redox Dark Sur             |                    |                                 | Very Shallow Dark                           | Surface (TF12)  |
| Depleted             | Below Dark Surface (A              | 11)       | Depleted Dark              |                    |                                 | Other (Explain in                           | Remarks)  |
| Thick Dar            | k Surface (A12)                    |           | Redox Depress              |                    |                                 |   |   |
| Sandy Mu<br>MLRA 147 | ıck Mineral (S1) (LRR N<br>7, 148) | 1,        | Iron-Manganes<br>MLRA 136) | e Masses (F12) (   | LRR N,                          |   |   |
| Sandy Gle            | eyed Matrix (S4)                   |           | Umbric Surface             | (F13) (MLRA 13     | 6, 122)                         | 2   |   |
| Sandy Re             | dox (S5)                           |           | Piedmont Flood             | Iplain Soils (F19) | (MLRA 148)                      | <sup>3</sup> Indicators of I<br>wetland byd | nydrophytic vegetation and<br>rology must be present, |
| Stripped I           | Matrix (S6)                        |           | Red Parent Mat             | terial (F21) (MLR  | A 127, 147)                     |   | turbed or problematic.                                |
| - 4 - 1 - 4          |                                    |           |                            |                    |                                 |   |   |
|                      | ayer (if observed):                |           |                            |                    |                                 |   |   |
| Type:                | h )                                |           |                            |                    |                                 | Hydric Soil Present?                        | Yes 🔿 No 🖲  |
| Depth (inc           | hes):                              |           |                            |                    |                                 |   |   |
| marks:               |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
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|                      |                                    |           |                            |                    |                                 |   |   |
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|                      |                                    |           |                            |                    |                                 |   |   |
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|                      |                                    |           |                            |                    |                                 |   |   |
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|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |
|                      |                                    |           |                            |                    |                                 |   |   |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Sampli                                   | ing Date: 23-Feb-21          |
|---|------------------|----------------------|--|------------------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Poi                             | nt: D-008                    |
| Investigator(s): J. Stelly and C. Hoffman   | Section, Tow     | nship, Range: S      | т  | R                            |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | ): flat                                  | Slope: $0.0\%$ / $0.0$ °     |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68329         | Long.:               | -85.95945                                | Datum: WGS 1984              |
| Soil Map Unit Name: BrB - Bedford silt loam, 2-6 percent slopes.  |                  |                      | NWI classification:                      | N/A                          |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       | <b>x</b> • 7 • 1     | lain in Remarks.)<br>umstances" present? | , Yes $ullet$ No $ightarrow$ |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | problematic?     | (If needed, expla    | ain any answers in Re                    | emarks.)                     |
|   |                  |                      |  |                              |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No   |                     |                             |
|---------------------------------|-------|------|---------------------|-----------------------------|
| Hydric Soil Present?            | Yes 🖲 | No   | Is the Sampled Area | Yes $\bullet$ No $\bigcirc$ |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |                             |
| Remarks:                        |       |      |                     |                             |
| Wet-4                           |       |      |                     |                             |
|                                 |       |      |                     |                             |
|                                 |       |      |                     |                             |

| Wetland Hydrology Indicators: <u>Secondary Indicators (minimum of two required)</u>                         |  |
|---|--|
| Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6)                 |  |
| Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)                        |  |
| High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)                                    |  |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3) Moss Trim Lines (B16)                         |  |
| Water Marks (B1) Presence of Reduced Iron (C4) Dry Season Water Table (C2)                                  |  |
| Sediment Deposits (B2)  |  |
| Drift deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)                        |  |
| Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)                          |  |
| Iron Deposits (B5) Geomorphic Position (D2)   |  |
| Inundation Visible on Aerial Imagery (B7)   |  |
| Water-Stained Leaves (B9)   |  |
| Aquatic Fauna (B13)   |  |
| Field Observations:   |  |
| Surface Water Present? Yes O No O Depth (inches):   |  |
| Water Table Present? Yes No  Depth (inches): Saturation Present? Yes No  No  No  No  No  No  No  No  No  No |  |
| Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):                |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |  |
|   |  |
| Remarks:  |  |
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|  |          | Dominant<br>—Species? |           | Sampling Point: D-008  |  |  |
|--|----------|-----------------------|-----------|--|--|--|
|  | Absolute | Rel.Strat.            | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                       | Status    | Number of Dominant Species   |  |  |
| 1  |          | 0.0%                  |           | That are OBL, FACW, or FAC: (A)  |  |  |
| 2  |          | 0.0%                  |           | Total Number of Dominant   |  |  |
| 3  |          | 0.0%                  |           | Species Across All Strata: (B)   |  |  |
| 4  | -        | 0.0%                  |           | Demonst of dominant Crossing   |  |  |
| 5  |          | 0.0%                  |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |  |  |
| 6  |          | 0.0%                  |           |  |  |  |
| 7  |          | 0.0%                  |           | Prevalence Index worksheet:  |  |  |
| 8  |          | 0.0%                  |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | )        | = Total Cover         |           | OBL species x 1 =  |  |  |
| 1  | •        | 0.0%                  |           | FACW species X 2 =   |  |  |
| 2  |          | 0.0%                  |           | FAC species $0 \times 3 = 0$   |  |  |
| 3  |          | 0.0%                  |           | FACU species $0 \times 4 = 0$  |  |  |
| •••  |          | 0.0%                  |           | UPL species $0 \times 5 = 0$   |  |  |
| 4<br>5   |          | 0.0%                  |           | Column Totals:75(A)150(B)  |  |  |
|  |          | 0.0%                  |           |  |  |  |
| 6  |          | 0.0%                  |           | Prevalence Index = B/A =   |  |  |
| 7  |          | 0.0%                  |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  |          | 0.0%                  |           | ✓ Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  |          |                       |           | ✓ Dominance Test is > 50%  |  |  |
| 10   |          | 0.0%                  |           | <b>V</b> Prevalence Index is $\leq$ 3.0 <sup>1</sup>   |  |  |
| Shrub Stratum (Plot size:)                                 |          | = Total Cover         |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1  |          | 0.0%                  |           | data in Remarks or on a separate sheet)  |  |  |
| 2  |          | 0.0%                  |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  | 0        | 0.0%                  |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  | 0        | 0.0%                  |           | be present, unless disturbed or problematic.   |  |  |
| 5  | 0        | 0.0%                  |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0        | 0.0%                  |           | Four Vegetation Strata:  |  |  |
| 7  | 0        | 0.0%                  |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = Total Cover         |           | regardless of height.  |  |  |
| 1. Cyperus esculentus                                      | 75       | ✔ 100.0%              | FACW      | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2  | 0        | 0.0%                  |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3  | 0        | 0.0%                  |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0        | 0.0%                  |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 5.   | 0        | 0.0%                  |           | in height.   |  |  |
| 6.   | 0        | 0.0%                  |           | Fire Verstetion Studter  |  |  |
| 7  |          | 0.0%                  |           | Five Vegetation Strata:  |  |  |
| 8.   |          | 0.0%                  |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |  |  |
| 9  | 0        | 0.0%                  |           | diameter at breast height (DBH).   |  |  |
| 10   | 0        | 0.0%                  |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |  |  |
| 11   | 0        | 0.0%                  |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |          | 0.0%                  |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
|  |          | = Total Cover         |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |
| Woody Vine Stratum (Plot size:)                            | 0        |                       |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |  |  |
| 1  |          | 0.0%                  |           | species, except woody vines, less than approximately 3 ft (1   |  |  |
| 2  |          | 0.0%                  |           | m) in height.  |  |  |
| 3  | -        |                       |           | Woody vines – Consists of all woody vines, regardless of height.   |  |  |
| 4  |          | 0.0%                  |           | -  |  |  |
| 5  |          | 0.0%                  |           | Hydrophytic  |  |  |
| 6  | 0        | 0.0%                  |           | Vegetation<br>Present? Yes • No O  |  |  |
|  | 0        | = Total Cove          | r         |  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |                       |           |  |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Desc             | ription: (Descri   | be to the depth   | needed to docume          | nt the indic  | ator or co  | nfirm the a             | bsence of indicators.)     |                                   |
|--------------------------|--------------------|-------------------|---------------------------|---------------|-------------|-------------------------|----------------------------|-----------------------------------|
| Depth                    |                    | atrix             |                           | edox Featu    | 1           |                         |                            |                                   |
| (inches)                 | Color (moi         |                   | Color (moist)             | %             | Tvpe        | Loc <sup>2</sup>        | Texture                    | Remarks                           |
| 0-21                     | 10YR 3/            | 1 85              | 5YR 4/6                   | 15            | C           | M                       | Clay Loam                  |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
| <sup>1</sup> Type: C=Cor | ncentration. D=De  | epletion. RM=Redu | ced Matrix, CS=Cove       | ered or Coate | ed Sand Gra | ains <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma | atrix                             |
| Hydric Soil              | Indicators:        |                   |                           |               |             |                         | Indicators for Proble      | matic Hydric Soils <sup>3</sup> : |
| Histosol                 | (A1)               |                   | Dark Surface              | (S7)          |             |                         |                            | -                                 |
| Histic Ep                | ipedon (A2)        |                   | Polyvalue Bel             | ow Surface    | (S8) (MLRA  | 147,148)                | 2 cm Muck (A10)            |                                   |
| Black His                |                    |                   | Thin Dark Su              |               |             |                         | Coast Prairie Redo         | ox (A16)                          |
|                          | n Sulfide (A4)     |                   | Loamy Gleye               |               |             | ,                       | (MLRA 147,148)             |                                   |
|                          | Layers (A5)        |                   | Depleted Mat              |               | )           |                         | Piedmont Floodpla          | ain Soils (F19)                   |
|                          | ck (A10) (LRR N)   |                   | Redox Dark S              |               |             |                         | (MLRA 136, 147)            |                                   |
| _                        |                    |                   |                           |               | -7)         |                         | Very Shallow Dark          | Surface (TF12)                    |
|                          | Below Dark Surfa   | ace (A11)         | Depleted Dar              |               | /)          |                         | Other (Explain in          | Remarks)                          |
|                          | rk Surface (A12)   |                   | Redox Depres              |               | (540) (100  |                         |                            |                                   |
| Sandy M                  | uck Mineral (S1) ( | (LRR N,           | Iron-Mangano<br>MLRA 136) | ese Masses    | (F12) (LRR  | N,                      |                            |                                   |
| MLRA 14                  |                    |                   |                           | co (E12) (M   | 104 124 12  | 22                      |                            |                                   |
|                          | leyed Matrix (S4)  |                   |                           |               |             |                         | <sup>3</sup> Indicators of | nydrophytic vegetation and        |
|                          | edox (S5)          |                   | Piedmont Flo              |               |             |                         | wetland hyd                | rology must be present,           |
| Stripped                 | Matrix (S6)        |                   | Red Parent M              | laterial (F21 | ) (MLRA 12  | 7, 147)                 | unless dis                 | sturbed or problematic.           |
| Postrictivo I            | Layer (if observ   | ed):              |                           |               |             |                         |                            |                                   |
|                          |                    | eu).              |                           |               |             |                         |                            |                                   |
| Туре:                    | 1                  |                   |                           |               |             |                         | Hydric Soil Present?       | Yes 🔍 No 🔾                        |
| Depth (ind               | ches):             |                   |                           |               |             |                         |                            |                                   |
| Remarks:                 |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
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|                          |                    |                   |                           |               |             |                         |                            |                                   |
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|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
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|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |
|                          |                    |                   |                           |               |             |                         |                            |                                   |

| Project/Site: Telesto Solar Project                              | City/County:     | Cecilia/Hardin      | Sampli  | ng Date: 23-Feb-21       |
|--|------------------|---------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                       |                  | State: KY           | Sampling Poin   | nt: D-009                |
| Investigator(s): J. Stelly and C. Hoffman                        | Section, Tow     | nship, Range: S     | тт  | R                        |
| Landform (hillslope, terrace, etc.):                             | Local relief (co | ncave, convex, none | ):  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                             | 37.68316         | Long.:              | -85.95923   | Datum: WGS 1984          |
| Soil Map Unit Name: BrB - Bedford silt loam, 2-6 percent slopes. |                  |                     | NWI classification:   | N/A                      |
|  | ear? Yes •       | Are "Normal Circ    | olain in Remarks.)<br>cumstances" present?<br>ain any answers in Re |                          |
| Summary of Findings - Attach site map showing s                  | ampling po       | oint locations,     | transects, impo   | ortant features, etc.    |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | $Yes \bigcirc N$ | No ©<br>No ©<br>No © | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|------------------|----------------------|---------------------------------------|---|
| Remarks:  |                  |                      |                                       |   |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required)                   |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)  | Surface Soil Cracks (B6)   |
| Surface Water (A1) True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)                          |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)  |
| Saturation (A3) Oxidized Rhizospheres along Living  | Roots (C3) Moss Trim Lines (B16)                                 |
| Water Marks (B1) Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)                                      |
| Sediment Deposits (B2)  | s (C6) Crayfish Burrows (C8)                                     |
| Drift deposits (B3) Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)                        |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                                  |
| Iron Deposits (B5)  | Geomorphic Position (D2)   |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)  |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                                     |
| Aquatic Fauna (B13)   | FAC-neutral Test (D5)  |
| Field Observations:   |  |
| Surface Water Present? Yes O No O Depth (inches):   |  |
| Water Table Present? Yes O No O Depth (inches):   | Wetland Hydrology Present? Yes O No 🖲                            |
|   |  |
| Saturation Present? (includes capillary fringe) Yes No  Depth (inches):   | Wetland Hydrology Present? Yes $\bigcirc$ No $oldsymbol{igodol}$ |
| Voc V No V Donth (inchos):  | ,  |
| (includes capillary fringe) Yes V No V Depth (inches):  | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp             | ,  |
| (includes capillary fringe) Yes V No V Depth (inches):  | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes Vo Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes No Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes No Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes No Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes No Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |
| (includes capillary fringe) Yes No Depth (inches):<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp<br>Remarks: | ,  |

|   |          | Dominant<br>– Species? |                     | Sampling Point: <b>D-009</b>   |
|---|----------|------------------------|---------------------|--|
|   | Absolute | Rel.Strat.             | Indicator<br>Status | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                 | % Cover  | Cover                  | Status              | Number of Dominant Species   |
| 1   | 0        | 0.0%                   |                     | That are OBL, FACW, or FAC: (A)  |
| 2   |          | 0.0%                   | ·                   | Total Number of Dominant   |
| 3   |          | 0.0%                   |                     | Species Across All Strata: (B)   |
| 4   |          | 0.0%                   |                     | Dereent of dominant Species  |
| 5   |          | 0.0%                   |                     | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)  |
| 6   |          | 0.0%                   |                     |  |
| 7   |          | 0.0%                   |                     | Prevalence Index worksheet:  |
| 8   |          | 0.0%                   |                     | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | ) *      | = Total Cover          |                     | OBL species $0 \times 1 = 0$   |
| 1.  |          | 0.0%                   |                     | <b>FACW species</b> <u>15</u> <b>x 2</b> = <u>30</u>   |
| 2   |          | 0.0%                   |                     | FAC species $0 \times 3 = 0$   |
| 3.  |          | 0.0%                   |                     | FACU species x 4 =200  |
| 4.  |          | 0.0%                   |                     | UPL species $0 \times 5 = 0$   |
| 5   |          | 0.0%                   |                     | Column Totals:   |
| 6.  | _        | 0.0%                   |                     | Prevalence Index = B/A = 3.538   |
| 7   |          | 0.0%                   |                     |  |
| 8   |          | 0.0%                   |                     | Hydrophytic Vegetation Indicators:   |
| 9   |          | 0.0%                   |                     | Rapid Test for Hydrophytic Vegetation  |
| 10.   |          | 0.0%                   |                     | $\Box Dominance Test is > 50\%$  |
|   |          | = Total Cove           |                     | □ Prevalence Index is $\leq 3.0^{-1}$  |
| Shrub Stratum (Plot size:)                                |          | _                      |                     | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 1   |          | 0.0%                   |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2   |          | 0.0%                   |                     |  |
| 3   |          | 0.0%                   |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.              |
| 4   |          | 0.0%                   |                     |  |
| 5   |          | 0.0%                   |                     | Definition of Vegetation Strata:   |
| 6   |          | 0.0%                   |                     | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                     |
| 7   | 0        | 0.0%                   |                     | (7.6 cm) or more in diameter at breast height (DBH),   |
| Herb Stratum (Plot size:)                                 | :        | = Total Cover          |                     | regardless of height.  |
| 1. Echinochioa crusgalli                                  | 50       | ✔ 76.9%                | FACU                | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2. Cyperus esculentus                                     | 15       | 23.1%                  | FACW                | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3   | 0        | 0.0%                   |                     | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4   | 0        | 0.0%                   |                     | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |
| 5   | 0        | 0.0%                   |                     | in noight.   |
| 6   | 0        | 0.0%                   |                     | Five Vegetation Strata:  |
| 7   | 0        | 0.0%                   |                     | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8   | 0        | 0.0%                   |                     | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9   | 0        | 0.0%                   |                     | diameter at breast height (DBH).   |
| 10  | 0        | 0.0%                   |                     | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |
| 11  | 0        | 0.0%                   |                     | than 3 in. (7.6 cm) DBH.   |
| 12  | 0        | 0.0%                   |                     | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |
| Woody Vine Stratum_(Plot size:)                           | 65       | = Total Cove           | •                   | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1   | 0        | 0.0%                   |                     | including herbaceous vines, regardless of size, and woody  |
|   |          | 0.0%                   |                     | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 2   |          | 0.0%                   |                     | Woody vines – Consists of all woody vines, regardless of   |
| 3   | -        | 0.0%                   |                     | height.  |
| 4   |          | 0.0%                   |                     |  |
| 5   | 0        | 0.0%                   |                     | Hydrophytic  |
| 6   |          | = Total Cove           |                     | Vegetation<br>Present? Yes O No O  |
| Remarks: (Include photo numbers here or on a senarate she |          |                        |                     |  |

ep

| Profile Desc     |  | the depth   |                       |              |             | nfirm the a           | absence of indicators.)    |   |
|------------------|--|-------------|-----------------------|--------------|-------------|-----------------------|----------------------------|---|
| Depth            | <u>Matrix</u>                                | ~~~         |                       | dox Featu    | 1           | 1                     | Taut                       | Dan   |
| (inches)<br>0-21 | <u>Color (moist)</u><br>10YR 3/3             | %<br>100    | Color (moist)         | _%           | Tvpe        | Loc <sup>2</sup>      | <b>Texture</b>             | Remarks   |
| 0-21             |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       | ,                          |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  | u  |             |                       |              |             | -                     | . <u> </u>                 |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  | <u>.                                    </u> |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  | <u>.</u>                                     |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
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|                  |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       | ,                          |   |
|                  | -  | on. RM=Redu | ced Matrix, CS=Covere | ed or Coate  | ed Sand Gra | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M  | atrix   |
| Hydric Soil      |  |             |                       |              |             |                       | Indicators for Proble      | ematic Hydric Soils <sup>3</sup> :                  |
| Histosol (       |  |             | Dark Surface (        | ,            |             |                       | 2 cm Muck (A10)            | (MLRA 147)  |
|                  | pedon (A2)                                   |             | Polyvalue Belov       |              |             |                       | Coast Prairie Redo         |   |
| Black His        | tic (A3)                                     |             | Thin Dark Surfa       | ace (S9) (N  | ILRA 147, 1 | 48)                   | (MLRA 147,148)             | JX (A10)  |
| Hydroger         | n Sulfide (A4)                               |             | Loamy Gleyed          | Matrix (F2)  |             |                       | Piedmont Floodpl           | ain Soils (F19)                                     |
| Stratified       | Layers (A5)                                  |             | Depleted Matrix       | x (F3)       |             |                       | (MLRA 136, 147)            |   |
| 2 cm Muc         | ck (A10) (LRR N)                             |             | Redox Dark Su         | rface (F6)   |             |                       | Very Shallow Dark          | < Surface (TF12)                                    |
| Depleted         | Below Dark Surface (A                        | (11)        | Depleted Dark         | Surface (F   | 7)          |                       | Other (Explain in          |   |
|                  | rk Surface (A12)                             | ,           | Redox Depress         | ions (F8)    |             |                       |                            | Kemarks)  |
| _                | uck Mineral (S1) (LRR I                      | N           | Iron-Manganes         | e Masses (   | F12) (LRR I | N,                    |                            |   |
| MLRA 14          | 7, 148)                                      | •,          | MLRA 136)             |              |             |                       |                            |   |
| Sandy Gl         | eyed Matrix (S4)                             |             | Umbric Surface        | e (F13) (ML  | .RA 136, 12 | 2)                    | <u> </u>                   |   |
| Sandy Re         |  |             | Piedmont Floor        | dplain Soils | (F19) (MLF  | RA 148)               | <sup>3</sup> Indicators of | hydrophytic vegetation and                          |
|                  | Matrix (S6)                                  |             | Red Parent Ma         | terial (F21) | (MLRA 12)   | 7, 147)               |                            | lrology must be present,<br>sturbed or problematic. |
|                  |  |             |                       |              |             |                       |                            |   |
|                  | ayer (if observed):                          |             |                       |              |             |                       |                            |   |
| Туре:            |  |             |                       |              |             |                       | Hydric Soil Present?       | Yes 🔿 No 🖲  |
| Depth (inc       | ches):                                       |             |                       |              |             |                       | Hydric Soli Present?       | res O NO O  |
| Remarks:         |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
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|                  |  |             |                       |              |             |                       |                            |   |
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|                  |  |             |                       |              |             |                       |                            |   |
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|                  |  |             |                       |              |             |                       |                            |   |
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|                  |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |
|                  |  |             |                       |              |             |                       |                            |   |

| Project/Site: Telesto Solar Project                            | City/County:                               | Cecilia/Hardin      | Sampl  | ing Date: 23-Feb-21      |
|--|--|---------------------|--|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY           | Sampling Poi   | int: D-010               |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow                               | nship, Range: S     | т  | R                        |
| Landform (hillslope, terrace, etc.):                           | Local relief (co                           | ncave, convex, none | ):   | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.6835                                    | Long.:              | -85.96046  | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                     | NWI classification:  | N/A                      |
|  | ear? Yes<br>tly disturbed?<br>problematic? | Are "Normal Circ    | lain in Remarks.)<br>:umstances" present?<br>ain any answers in Re |                          |
| Summary of Findings - Attach site map showing s                | sampling po                                | oint locations,     | transects, impo  | ortant features, etc.    |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----|---------------------------------------|---|
| Remarks:  |                         |    |                                       |   |
|   |                         |    |                                       |   |
|   |                         |    |                                       |   |
|   |                         |    |                                       |   |

| Wetland Hydrology Indicate  | ors:                  |           |  | Secondary Indicators (minimum of two required) |
|---|-----------------------|-----------|--|--|
| Primary Indicators (minimu  | um of one             | required; | check all that apply)  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                       |           | True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)   |                       |           | Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)                        |
| Saturation (A3)   |                       |           | Oxidized Rhizospheres along Living Roots (C3)                            | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                       |           | Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  |                       |           | Recent Iron Reduction in Tilled Soils (C6)                               | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   |                       |           | Thin Muck Surface (C7)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)   |                       |           | Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                       |           |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria   | al Imagery (          | B7)       |  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)   | )                     |           |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   |                       |           |  | FAC-neutral Test (D5)                          |
| Field Observations:   | $\sim$                | $\sim$    |  |  |
| Surface Water Present?  | Yes $\bigcirc$        | No 🖲      | Depth (inches):  |  |
| Water Table Present?  | $_{\rm Yes} \bigcirc$ | No 🖲      | Depth (inches):  | tydrology Present? Yes 🔿 No 🖲                  |
| Saturation Present?   | $\cap$                |           | wetland F  | lydrology Present? Yes 🔾 No 🔍                  |
| (includes capillary fringe)   | $Yes \bigcirc$        | No 🖲      | Depth (inches):  |  |
| (includes capillary fringe)   |                       |           | Depth (inches):<br>ring well, aerial photos, previous inspections), if a |  |
| (includes capillary fringe)   |                       |           | Depth (inches):  |  |
| (includes capillary fringe)   |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st             |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st<br>Remarks: |                       |           | Depth (inches):  |  |

| Absolute         Species?<br>Bet Stratum         Indicator<br>Status         Dominance Test worksheet:<br>Number of Dominants Species           1.         0         0.0%         1.         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         0.0%         1.         1.         0.0%         1.         0.0%         1.         1.         0.0%         1.         1.         0.0%         1.         1.         0.0%  |   |
|---|---|
| 1.       0       0.0%       Twinde of Dominant Species       1       (A)         2.       0       0.0%       Species Across All Stratus       2       (B)         4.       0       0.0%       Pervention of Dominant       2       (B)         5.       0       0.0%       Pervention of Dominant       2       (B)         6.       0       0.0%       Prevalence Index worksheet:       D       0       0.0%       Prevalence Index worksheet:       D       0       0.0%       Prevalence Index worksheet:       D   | (Plot size:                               |
| 2.       0       0.0%       Total Number of Deminant         3.       0       0.0%       Percent of dominant Species         5.       0       0.0%       Percent of dominant Species         6.       0       0.0%       Percent of dominant Species         7.       0       0.0%       Percent of dominant Species         8.       0       0.0%       Percent of dominant Species         7.       0       0.0%       Percent of dominant Species         8.       0       0.0%       Percent of dominant Species         8.       0       0.0%       Prevalence Index worksheet:         1.       0       0.0%       Prevalence Index worksheet:         2.       0       0.0%       Prevalence Index es  |   |
| 3.       0       0.0%       Total Number Of Dominant       Species Across All Strata:       2       (8)         4.       0       0.0%       Percent of dominant Species       Total Number OBL, FACW, or FAC:       5.0.0%       (A/B)         7.       0       0.0%       Prevalence Index worksheet:       Total % cover of:       Multibly bz:         8.       0       0.0%       Prevalence Index worksheet:       0       A + 2       30         1.       0       0.0%       FACW species       5.       A + 2       30         2.       0       0.0%       FACW species       5.       A + 200         4.       0       0.0%       FACW species       0.x + 2       30         7.       0       0.0%       FACW species       0.x + 2       30         6.       0       0.0%       FACW species       0.x + 2       20         9.       0       0.0%       Prevalence Index = B/A + 3538       230       (B)         9.       0       0.0%       Prevalence Index is 53.0 1       Provalence Index is 53.0 1       Prevalence Index is 53.0 1         9.       0       0.0%       Degreesent, unless disturbed or problematics       Prevalence Index is 53.0 1       Prevalence Index is  |   |
| 3.       0       0.0%       Percent of dominant Species       (D)         5.       0       0.0%       Percent of dominant Species       (A)         6.       0       0.0%       Prevalence Index worksheet:       (A)         7.       0       0.0%       Prevalence Index worksheet:       (A)         8.       0       0.0%       Prevalence Index worksheet:       (A)         1.       0       0.0%       FAC species       0       (A)         2.       0       0.0%       FAC species       0       (A)         3.       0       0.0%       FAC species       0       (A)       2.0         4.       0       0.0%       FAC species       0       (A)       2.3       (B)         4.       0       0.0%       FAC species       0       (A)       2.30       (B)         5.       0       0.0%       FAC species       0       (A)       2.30       (B)         6.       0       0.0%       FAC species       0       (A)       2.30       (B)         6.       0       0.0%       Fac species       0       (A)       2.30       (B)         7.       0  |   |
| 5.       0       0.0%       Percent of cominant Species       5.0.0%       (AB)         6.       0       0.0%       That Are OBL, FACW, or FAC:       5.0.0%       (AB)         7.       0       0.0%       Provalence Index worksheet:       Total %.Cover of:       Multiply by:         8.       0       0.0%       FACW species       0.x 1 = 0         1.       0       0.0%       FACW species       5.x 2 = 30         2.       0       0.0%       FACW species       5.x 2 = 0.0         3.       0       0.0%       FACW species       5.x 4 = 200         4.       0       0.0%       FACW species       0.x 5 = 0.         5.       0       0.0%       Prevalence Index = 8/A = 3.538       7.         6.       0       0.0%       Prevalence Index is 53.0 1       8.3538         7.       0       0.0%       Prevalence Index is 53.0 1       9.         10.       0       0.0%       Prevalence Index is 53.0 1       9.         11.       0       0.0%       Prevalence Index is 53.0 1       9.         12.       0       0.0%       Prevalence Index is 53.0 1       9.         13.       0       0.0%       Prevale   |   |
| 0.  |   |
| 7.       0       0.0%       Prevalence Index worksheet:         8.       0       0.0%       Tail % Cover of:       Multiply by:         Sapiing-Sapiing/Shrub Stratum       (Plot size:)       0       = Total Cover       OBL species       0       x 2 = 30.         1.       0       0.0%       FAC species       0       x 3 =0         2.       0       0.0%       FAC species       0       x 4 =0         3.       0       0.0%       Col umn Total s:       65.       (A)      0         6.       0       0.0%       Col umn Total s:       65.       (A)      0         10.       0       0.0%       Prevalence Index is 53.0       10       Prevalence Index is 53.0       10         11.       0       0.0%       0.0%       Prevalence Index is 53.0       1       10////////////////////////////////////   |   |
| 8.       0       0.0%       Total % Cover of:       Multiply by:         Sapling-Sapling/Shrub Stratum       0       0.0%       FAC species       0       x 1 =       0         1.       0       0.0%       FAC species       0       x 1 =       0         2.       0       0.0%       FAC species       0       x 4 =       200         3.       0       0.0%       FAC species       0       x 4 =       200         4.       0       0.0%       FAC species       0       x 5 =       0         5.       0       0.0%       Column Totals:       65       (A)       230       (B)         7.       0       0.0%       Prevalence Index = B/A =       3539       1   |   |
| Sapiling-Sapiling/Shrub Stratum       (Plot size:       )       0       = Total Cover       OBL species       0       x 1 =       0         1.       0       0.0%       FAC species       0       x 3 =       0         2.       0       0.0%       FAC species       0 x 3 =       0         3.       0       0.0%       UPL species       0 x 4 =       200         4.       0       0.0%       UPL species       0 x 5 =       0       6         5.       0       0.0%       UPL species       0 x 5 =       0       6         6.       0       0.0%       Prevalence Index = B/A =       3.538       1         9.       0       0.0%       Rapid Test for Hydrophytic Vegetation       1       0  |   |
| Sabiling-Sapiling/Shrub Stratum       (Plot size:)       0       0.0%       FAC species       1.         1.       0       0.0%       FAC species       0.x 3 = 0.         2.       0       0.0%       FAC species       0.x 4 = 200.         4.       0       0.0%       UPL species       0.x 4 = 200.         5.       0       0.0%       Column Totals:       6.       0.0%         7.       0       0.0%       Olumn Totals:       6.       3.538.         9.       0       0.0%       Prevalence Index = B/A = 3.538.         9.       0       0.0%       Dominace Test is > 50%       Dominace Test is > 50%         10.       0       0.0%       Dominace Test is > 50%       Dominace Test is > 50%         11.       0       0.0%       Dominace Test is > 50%       Dominace Test is > 50%         2.       0       0.0%       Prevalence Index is 33.0 1       Indicators of hydric oli and wetland hydrology must be present, unless disturbed or problematic.         2.       0       0.0%       Problematic Hydrophytic Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       FACW       Sequing strate sto all woody plants, excluding vines, 3 in (f th noli.1)         1. <th>8</th>   | 8   |
| 1.       0       0.0%       FAC species       0       x 2 =0         2.       0       0.0%       FAC species       0       x 3 =0         3.       0       0.0%       FAC species       0       x 4 =00         4.       0       0.0%       FAC species       0       x 5 =0         5.       0       0.0%       Prevalence index = B/A =3.538       FAC species       5.       (B)         7.       0       0.0%       Prevalence index = B/A =3.538       Hydrophytic Vegetation Indicators:       Rapid Test for Hydrophytic Vegetation         9.       0       0.0%       Prevalence index is \$3.0 1       Dominance Test is > 50%         10.       0       0.0%       Prevalence index is \$3.0 1       Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)         11.       0       0.0%       Prevalence index is \$3.0 1       Separation 1 (Explain)         12.       0       0.0%       Prevalence index is \$3.0 1       Separation 1 (Explain)         13.       0       0.0%       Prevalence index is \$3.0 1       Separation 5 (Fort Vegetation Strata:         6.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)       1 Indicators of hydric soil and wetland hydrology must be p   | Sapling-Sapling/Shrub Stratum (Plot size: |
| 2.       0       0.0%       FAC species       0       x 3 =       0         3.       0       0.0%       FAC species       50       x 4 =       200         4.       0       0.0%       FAC species       50       x 4 =       200         4.       0       0.0%       Column Totals:       65       (A)       230       (B)         5.       0       0.0%       Column Totals:       65       (A)       230       (B)         6.       0       0.0%       Prevalence Index = B/A =       3.538       (B)       (B)         7.       0       0.0%       Prevalence Index is 53.0 <sup>1</sup> (B)       (B)       (B)       (B)       (B)       (B)       (B)       (C)  |   |
| 3.       0       0.0%       FACU species       50       x 4 =       200         4.       0       0.0%       UPL species       0       x 5 =       0         5.       0       0.0%       Column Totals:       65       (A)       230       (B)         6.       0       0.0%       Prevalence Index = B/A =       2.538       7.       0       0.0%       Prevalence Index = B/A =       2.538       1.       0       0.0%       Prevalence Index = B/A =       2.538       1.       0       0.0%       Dominance Test is > 50%       1.       1.       0       0.0%       Dominance Test is > 50%       1.       1.       0       0.0%       Dominance Test is > 50%       1.       1.       0       0.0%       Dominance Test is > 50%       1.       1.       1.       0       0.0%       1.  |   |
| 4.       0       0.0%       UPL species       0       x 5 =       0         5.       0       0.0%       Col um Total s:       6.       2.0       (B)         7.       0       0.0%       Prevalence Index = B/A =       3.538         7.       0       0.0%       Prevalence Index = B/A =       3.538         8.       0       0.0%       Dominance Test is > 50%         9.       0       0.0%       Prevalence Index is 53.0 1         10.       0       0.0%       Prevalence Index is 53.0 1         11.       0       0.0%       Prevalence Index is 53.0 1         12.       0       0.0%       Prevalence Index is 53.0 1         13.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         14.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         15.       0       0.0%       Testratum (Plot size:       )         16.       0       0.0%       Testratum Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         26.       0       0.0%       Voody vines - Consists of all woody vines, aproximately 20 ti height.         3.       0       0.0%       Voody p   |   |
| 5.       0       0.0%       Col umn Total s:       65       (A)       230       (B)         6.       0       0.0%       Prevalence Index = B/A =  |   |
| 6.       0       0.0%       Prevalence Index = B/A =3.538_         7.       0       0.0%       Hydrophytic Vegetation Indicators:         8.       0       0.0%       Dominance Test is > 50%         10.       0       0.0%       Dominance Test is > 50%         11.       0       0.0%       Dominance Test is > 50%         12.       0       0.0%       Drevalence Index is ≤3.0 <sup>1</sup> 13.       0       0.0%       Drevalence Index is ≤3.0 <sup>1</sup> 14.       0       0.0%       Prevalence Index is ≤4.0 <sup>1</sup> 15.       0       0.0%       Definition of Vegetation <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         15.       0       0.0%       Definition of Vegetation Strata:         7.       0       0.0%       Definition of Vegetation Strata:         7.       0       0.0%       Tes stratum - Consists of woody plants, excluding vines, 3 in .DBH and greater than 3.28 ft (1m) tall.         2. Cyperus esculentus       15       23.1% FACW       Sapling/shrub stratum - Consists of all herbaceous (non-woody) plants, excluding vines, less than 3.10.0%         4.       0       0.0%       Gowdow vines - Consists of all woody vines, approximately 20 ti (m) vines, less than 3.28 ft tall.         9.       0       0.0%  |   |
| 7.       0       0.0%       Hydrophytic Vegetation Indicators:         8.       0       0.0%       Rapid Test for Hydrophytic Vegetation         9.       0       0.0%       Dominance Test is > 50%         10.       0       0.0%       Prevalence Index is \$3.0 <sup>1</sup> Shrub Stratum (Plot size:)       0       0.0%       Prevalence Index is \$3.0 <sup>1</sup> 1.       0       0.0%       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         3.       0       0.0%       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         4.       0       0.0%       Problematic Hydrophytic Vegetation Strata:         5.       0       0.0%       Problematic Hydrophytic Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       FACU         1. Echinochioa crusgalii       50       7.6.9%       FACU         3.       0       0.0%       FACU         4.       0       0.0%       FACU         7.       0       0.0%       FACU         8.       0       0.0%       FACU         9.       0       <   |   |
| 8.  |   |
| 9.       0       0.0%       Image: Instant of Hydrophytic Vegetation         9.       0       0.0%       Image: Instant of Hydrophytic Vegetation         10.       0       0.0%       Image: Instant of Hydrophytic Vegetation         11.       0       0.0%       Image: Instant of Hydrophytic Vegetation         2.       0       0.0%       Image: Instant of Hydrophytic Vegetation         3.       0       0.0%       Image: Instant of Hydrophytic Vegetation         4.       0       0.0%       Image: Instant of Hydrophytic Vegetation         5.       0       0.0%       Image: Instant of Hydrophytic Vegetation         6.       0       0.0%       Image: Instant of Hydrophytic Vegetation         7.       0       0.0%       Image: Instant of Hydrophytic Vegetation         1.       End instant of Hydrophytic Vegetation       Image: Instant of Hydrophytic Vegetation         7.       0       0.0%       Image: Instant of Hydrophytic Vegetation         8.       0       0.0%   |   |
| Jordinance Test is > 50%         10.       0       0.0%         Shrub Stratum (Plot size:)       0       = Total Cover         1.       0       0.0%         2.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         1. Echlnochloa crusgalli       50       ✓ 7.6.%         3.       0       0.0%         1. Echlnochloa crusgalli       50       ✓ 7.6.%         3.       0       0.0%         6.       0       0.0%         7.       0       0.0%         1. Echlnochloa crusgalli       50       ✓ 7.6.%         3.       0       0.0%         6.       0       0.0%         7.       0       0.0%         8.       0       0.0%         9.       0       0.0%  |   |
| Shrub Stratum (Plot size:)       0       = Total Cover         1.       0       0.0%         2.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         Herb Stratum (Plot size:))       0       = Total Cover         1.       Echinochloa crusgalii       50       ✓ 76.9%         3.       0       0.0%       Saling/shrub stratum - Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         7.       0       0.0%       Saling/shrub stratum - Consists of all herbaceous (non-woody) plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         3.       0       0.0%       Saling/shrub stratum - Consists of woody plants, excluding vines, 3 an (7.6 cm) or more in diameter than 3.28 ft (1 m) tall.         4.       0       0.0%       Saling/shrub stratum - Consists of all woody vines greater than 3.28 ft tall.         8.       0       0.0%       Saling stratum - Consists of all woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of size, and all other plants excluding woody tifes, approximatel         |   |
| Stratum       (Plot size:)          Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)         2.  |   |
| 2.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         1. Echlanchiaa crusgalli       50       7.6.9%         3.       0       0.0%         1. Echlanchiaa crusgalli       50       7.6.9%         3.       0       0.0%         4.       0       0.0%         1. Echlanchiaa crusgalli       50       7.6.9%         3.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         8.       0       0.0%         9.       0       0.0%         9.       0       0.0%  |   |
| 3.       0       0.0%       1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         4.       0       0.0%       Definition of Vegetation Strata:         5.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum – Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         3.       0       0.0%       Sapling/shrub stratum – Consists of woody plants, excluding vines, 28 ft (1 m) tall.         4.       0       0.0%       Vadaget tables of size, and all other plants less than 3.28 ft tall.         9.       0       0.0%       FACU         8.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       FACU         9.       0       0.0%       FACU  |   |
| 4.       0       0.0%       Depresent, Unless disturbed or problematic.         5.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         8.       0       0.0%       76.9%         9.       0       0.0%       FACU         9.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Sapling/shrub stratum - Consists of woody plants, excluding vines, ess than 3.0 BH and greater than 3.28 ft (1m) tall.         1.       Echinochloa crusgalli       50       ✓       76.9%       FACU         3.       0       0.0%       Sapling/shrub stratum - Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         4.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         9.       0       0.0%       Gameter at breast height (DBH).         8abling stratum - Consists of woody plants, excluding woody       Sabling stratum - Consists o                                     |   |
| 5.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         9.       0       76.9%       FACU         1.       Echinochloa crusgalli       50       76.9%       FACU         2.       Cyperus esculentus       15       23.1%       FACW         3.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody) plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.         4.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         9.       0       0.0%       Sapling stratum - Consists of woody vines, approximately 20         tf (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH), regardless of woody vines, approximately 20         8.       0       0.0%       Sapling stratum - Consists of all woody vines, approximately 20         tf (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).       Sapling |   |
| 6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         1.       Echlnochloa crusgalli       50       7.6.9%       FACU         2.       Cyperus esculentus       15       23.1%       FACW         3.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody) plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.         4.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         9.       0       0.0%       Saping stratum - Consists of all woody vines, approximately 20         8.       0       0.0%       Saping stratum - Consists of woody plants, excluding woody vines, approximately 20         9.       0       0.0%       Saping stratum - Consists of woody vines, approximately 20   |   |
| 7.00.0%Tree stratum - Consists of woody plants, excluding vines, 3 in<br>(7.6 cm) or more in diameter at breast height (DBH),<br>regardless of height.1.Echinochloa crusgalli50 $\checkmark$ 76.9%FACUSapling/shrub stratum - Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.2.Cyperus esculentus15 $\checkmark$ 23.1%FACW3.00.0%0.0%Herb stratum - Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall.4.00.0%0.0%5.00.0%Five Vegetation Strata:7.00.0%Tree - Woody plants, excluding woody vines, approximately 20<br>ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).9.00.0%Sapling stratum - Consists of woody plants, excluding woody vines, excluding woody vines, excluding woody vines, approximately 20<br>ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).   |   |
| Herb Stratum(Plot size:) $0$ = Total Coverregardless of height.1. Echinochloa crusgalli $50$ $76.9\%$ FACUSapling/shrub stratum - Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.2. Cyperus esculentus $15$ $23.1\%$ FACU3 $0$ $0.0\%$ Herb stratum - Consists of all herbaceous (non-woody) plants regardless of size, and all other plants less than 3.28 ft tall.4 $0$ $0.0\%$ Woody vines - Consists of all woody vines greater than 3.28 ft tall.5 $0$ $0.0\%$ Five Vegetation Strata:7 $0$ $0.0\%$ Tree - Woody plants, excluding woody vines, approximately 208 $0$ $0.0\%$ If (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).9 $0$ $0.0\%$ Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20   |   |
| 1. Echinochloa crusgalli       50 <ul> <li>76.9%</li> <li>FACU</li> </ul> Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.           2. Cyperus esculentus       15 <ul> <li>23.1%</li> <li>A.</li> <li>0</li> <li>0.0%</li> <li>0</li> <li>0.0%</li> </ul> Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.           4.         0         0.0%           5.         0         0.0%         Woody vines – Consists of all woody vines greater than 3.28 ft tall.           6.         0         0.0%         Five Vegetation Strata:           7.         0         0.0%         Five Vegetation Strata:           7.         0         0.0%         Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         Sapling stratum – Consists of woody plants, excluding woody   |   |
| 2. Cyperus esculentus       15       23.1%       FACW         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         8.       0       0.0%         9.       0       0.0%   |   |
| 2. orpered condition       0       0.0%       regardless of size, and all other plants less than 3.28 ft tall.         3.       0       0.0%       regardless of size, and all other plants less than 3.28 ft tall.         4.       0       0.0%       in height.         5.       0       0.0%       in height.         6.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       If (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum – Consists of woody plants, excluding woody   |   |
| 3.       0       0.0%       Woody vines – Consists of all woody vines greater than 3.28 ft in height.         4.       0       0.0%       in height.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       If (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum – Consists of woody plants, excluding woody   |   |
| 7.       0       0.0%       in height.         6.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       If (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum – Consists of woody plants, excluding woody   |   |
| 3.       0       0.0%       Five Vegetation Strata:         6.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         9.       0       0.0%       diameter at breast height (DBH).  |   |
| 7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       It (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum – Consists of woody plants, excluding woody  |   |
| 8.       0       0.0%       If te - woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).   |   |
| 9 diameter at breast height (DBH).  | _   |
| Sapling stratum – Consists of woody plants, excluding woody   |   |
| 10 vines, approximately 20 ft (6 m) or more in height and less  |   |
| $11. \qquad 0 \qquad 0.0\% \qquad \text{than 3 in. (7.6 cm) DBH.}$  |   |
| 12 0 0 00% Shrub stratum – Consists of woody plants, excluding woody  |   |
| Vines, approximately 5 to 20 ft (1 to 6 m) in neight.   |   |
| Woody Vine Stratum       (Plot size:       )       05       = Total Cover       Herb stratum – Consists of all herbaceous (non-woody) plants including herbaceous vines, regardless of size, and woody         1       0       0.0%       0.0%  |   |
| 1 species, except woody vines, less than approximately 3 ft (1  |   |
| 2 $0$ $\square$ 0.0% m) in height.  |   |
| 3 $0$ $\square$ 0.0% Woody vines – Consists of all woody vines, regardless of height.   |   |
|   |   |
| 5 0 U 0.0% Hydrophytic  |   |
| 6 $0$ $\Box$ 0.0% Vegetation Present? Yes $\bigcirc$ No $\bigcirc$  | б   |
| <u> </u>  |   |

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| epth                | Matrix                             |           | Re                           | dox Featu   |                   |                       |                                      |   |
|---------------------|------------------------------------|-----------|------------------------------|-------------|-------------------|-----------------------|--------------------------------------|---|
| ches)               | Color (moist)                      | %         | Color (moist)                | %           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture                              | Remarks   |
| -21                 | 10YR 3/3                           | 100       | ·                            |             |                   |                       | Loam                                 |   |
|                     |                                    |           | ·                            |             |                   |                       |                                      |   |
|                     |                                    |           | ·                            |             |                   |                       |                                      |   |
|                     |                                    |           |                              |             |                   |                       |                                      |   |
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|                     |                                    |           |                              |             |                   |                       |                                      |   |
| : C=Con             | centration. D=Depletic             | n. RM=Red | uced Matrix, CS=Covere       | ed or Coate | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma           | atrix   |
| ic Soil I           | ndicators:                         |           |                              |             |                   |                       | Indicators for Proble                | matic Hydric Soils <sup>3</sup> :                 |
| istosol (A          |                                    |           | Dark Surface (               |             |                   |                       | 2 cm Muck (A10)                      |   |
|                     | pedon (A2)                         |           | Polyvalue Belov              |             |                   |                       | Coast Prairie Redo                   |   |
| lack Hist           | ic (A3)<br>Sulfide (A4)            |           | Thin Dark Surfa Loamy Gleyed |             |                   | 48)                   | (MLRA 147,148)                       |   |
|                     | Layers (A5)                        |           | Depleted Matrix              |             |                   |                       | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)                                   |
|                     | k (A10) (LRR N)                    |           | Redox Dark Su                |             |                   |                       | Very Shallow Dark                    | Surface (TF12)                                    |
| epleted             | Below Dark Surface (A              | .11)      | Depleted Dark                | Surface (F  | 7)                |                       | Other (Explain in I                  |   |
| hick Dar            | k Surface (A12)                    |           | Redox Depress                |             |                   |                       | _ 、                                  |   |
| andy Mu<br>ILRA 147 | ick Mineral (S1) (LRR M<br>7, 148) | Ν,        | Iron-Manganes<br>MLRA 136)   |             |                   |                       |                                      |   |
|                     | eyed Matrix (S4)                   |           |                              |             |                   |                       | <sup>3</sup> Indicators of I         | nydrophytic vegetation and                        |
| Sandy Re            | dox (S5)<br>Matrix (S6)            |           | Piedmont Flood               |             |                   |                       | wetland hyd                          | rology must be present,<br>turbed or problematic. |
|                     |                                    |           |                              |             | (IVILKA 127       | , 147)                |                                      |   |
|                     | ayer (if observed):                |           |                              |             |                   |                       |                                      |   |
| ype:                | hos);                              |           |                              |             |                   |                       | Hydric Soil Present?                 | Yes 🔿 No 🖲  |
|                     | hes):                              |           |                              |             |                   |                       |                                      |   |
| arks:               |                                    |           |                              |             |                   |                       |                                      |   |
|                     |                                    |           |                              |             |                   |                       |                                      |   |
|                     |                                    |           |                              |             |                   |                       |                                      |   |
|                     |                                    |           |                              |             |                   |                       |                                      |   |
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|                     |                                    |           |                              |             |                   |                       |                                      |   |
|                     |                                    |           |                              |             |                   |                       |                                      |   |

| Project/Site: Telesto Solar Project                            | City/County:              | Cecilia/Hardin      | Sampli   | ing Date: 23-Feb-21      |  |
|--|---------------------------|---------------------|--|--------------------------|--|
| Applicant/Owner: 7x Energy                                     |                           | State: KY           | Sampling Poir  | nt: D-011                |  |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow              | nship, Range: S     | т  | R                        |  |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co          | ncave, convex, none | ): flat  | Slope: $0.0\%$ / $0.0$ ° |  |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68391                  | Long.:              | -85.96002  | Datum: WGS 1984          |  |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |                           |                     | NWI classification:  | PFO1A                    |  |
|  | ear? Yes<br>ly disturbed? | Are "Normal Circ    | lain in Remarks.)<br>sumstances" present?<br>ain any answers in Re |                          |  |
|  |                           |                     |  |                          |  |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |          |
|---------------------------------|-------|------|---------------------|----------|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |          |
| Remarks:                        |       |      |                     |          |
| Wet-5                           |       |      |                     |          |
|                                 |       |      |                     |          |
|                                 |       |      |                     |          |

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|---|

|  | Dominant<br>Species? |               |           | Sampling Point: D-011   |  |  |
|--|----------------------|---------------|-----------|---|--|--|
|  | Absolute             | Rel.Strat.    | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |               | Status    | Number of Dominant Species  |  |  |
| 1. Acer rubrum   | 60                   | 70.6%         | FAC       | That are OBL, FACW, or FAC: (A)   |  |  |
| 2. Celtis laevigata  | 15                   | 17.6%         | FACW      | Total Number of Dominant  |  |  |
| 3. Ulmus americana   |                      |               | FACW      | Species Across All Strata: (B)  |  |  |
| 4  |                      | 0.0%          |           | Percent of dominant Species   |  |  |
| 5  |                      | 0.0%          |           | That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |  |  |
| 6  |                      | 0.0%          |           |   |  |  |
| 7  |                      | 0.0%          |           | Prevalence Index worksheet:   |  |  |
| 8  | 0                    | 0.0%          |           | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85 =                 | = Total Cover |           | OBL species x 1 =   |  |  |
| 1  | _                    | 0.0%          |           | <b>FACW species</b> $25$ <b>x 2</b> = $50$  |  |  |
| 2.   | 0                    | 0.0%          |           | <b>FAC species</b> <u>60</u> <b>x 3</b> = <u>180</u>  |  |  |
| 3  |                      | 0.0%          |           | FACU species $0 \times 4 = 0$   |  |  |
| 4.   |                      | 0.0%          |           | UPL species $0 \times 5 = 0$  |  |  |
| 5.   |                      | 0.0%          |           | Column Totals: <u>85</u> (A) <u>230</u> (B)   |  |  |
| 6  | 0                    | 0.0%          |           | Prevalence Index = $B/A = 2.706$  |  |  |
| 7  |                      | 0.0%          |           |   |  |  |
| 8  |                      | 0.0%          |           | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation   |  |  |
| 9  | _                    | 0.0%          |           | <ul> <li>✓ Dominance Test is &gt; 50%</li> </ul>  |  |  |
| 10   |                      | 0.0%          |           | $\checkmark$ Dominance lest is > 50%<br>$\checkmark$ Prevalence Index is $\leq$ 3.0 <sup>1</sup>                                  |  |  |
| Shrub Stratum (Plot size:)                                 |                      | = Total Cover |           |   |  |  |
|  |                      | 0.0%          |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 1  |                      | 0.0%          |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 23   |                      | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4  |                      | 0.0%          |           | be present, unless disturbed or problematic.  |  |  |
|  |                      | 0.0%          |           | Definition of Vegetation Strata:  |  |  |
| 56   |                      | 0.0%          |           | Four Vegetation Strata:   |  |  |
| 67   | 0                    | 0.0%          |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
| 7  |                      | = Total Cover |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |
| Herb Stratum (Plot size:)                                  |                      |               |           | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1  |                      | 0.0%          |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2  | 0                    | 0.0%          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4  | 0                    | 0.0%          |           | in height.  |  |  |
| 5  | 0                    | 0.0%          |           |   |  |  |
| 6  | 0                    | 0.0%          |           | Five Vegetation Strata:   |  |  |
| 7  | 0                    | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  | 0                    | 0.0%          |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9  | 0                    | 0.0%          |           | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10   |                      | 0.0%          |           | vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   |                      | 0.0%          |           | than 3 in. (7.6 cm) DBH.<br>Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12   |                      |               |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                            | :                    | = Total Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0                    | 0.0%          |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2  | 0                    | 0.0%          |           | m) in height.   |  |  |
| 3  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  | 0                    | 0.0%          |           | height.   |  |  |
| 5  | 0                    | 0.0%          |           | Hydrophytic   |  |  |
| 6  | 0                    | 0.0%          |           | Vegetation  |  |  |
|  | 0                    | = Total Cove  | r         | Present? Yes Vo V   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)                 |               |           |   |  |  |

| Profile Descri | iption: (Describe to   | the depth r | needed to documen         | t the indic   | ator or co   | onfirm the a            | absence of indicators.)              |                                    |
|----------------|------------------------|-------------|---------------------------|---------------|--------------|-------------------------|--------------------------------------|------------------------------------|
| Depth          | Matrix                 |             |                           | dox Featu     | 1            |                         |                                      |                                    |
| (inches)       | Color (moist)          | %           | Color (moist)             | %             | Tvpe         | Loc <sup>2</sup>        | Texture                              | Remarks                            |
| 0-21           | 10YR 3/1               | 80          | 5YR 4/6                   | 20            | C            | M                       | Loam                                 |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
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|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        | n. RM=Redu  | ced Matrix, CS=Cover      | ed or Coate   | ed Sand Gra  | ains <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma           | atrix                              |
| Hydric Soil I  | ndicators:             |             |                           |               |              |                         | Indicators for Proble                | ematic Hydric Soils <sup>3</sup> : |
| Histosol (A    | A1)                    |             | Dark Surface (            | (S7)          |              |                         | 2 cm Muck (A10)                      | (MI RA 147)                        |
| Histic Epip    |                        |             | Polyvalue Belo            | w Surface     | (S8) (MLRA   | 147,148)                | _                                    |                                    |
| Black Histi    | ic (A3)                |             | Thin Dark Surf            | ace (S9) (N   | /ILRA 147, 1 | 148)                    | Coast Prairie Redo<br>(MLRA 147,148) | DX (A16)                           |
| Hydrogen       | Sulfide (A4)           |             | Loamy Gleyed              | Matrix (F2)   | )            |                         | Piedmont Floodpla                    | ain Soils (F19)                    |
| Stratified I   | Layers (A5)            |             | Depleted Matr             | ix (F3)       |              |                         | (MLRA 136, 147)                      |                                    |
| 2 cm Muck      | k (A10) (LRR N)        |             | Redox Dark Su             | urface (F6)   |              |                         | Very Shallow Dark                    | Surface (TF12)                     |
| Depleted I     | Below Dark Surface (A  | .11)        | Depleted Dark             | Surface (F    | 7)           |                         | Other (Explain in                    |                                    |
|                | k Surface (A12)        |             | Redox Depress             | sions (F8)    |              |                         |                                      | Nethal K3)                         |
|                | ck Mineral (S1) (LRR N | ١,          | Iron-Mangane<br>MLRA 136) | se Masses (   | (F12) (LRR   | N,                      |                                      |                                    |
|                | yed Matrix (S4)        |             | Umbric Surfac             | e (F13) (MI   | RA 136. 12   | 22)                     |                                      |                                    |
| Sandy Gle      |                        |             | Piedmont Floo             |               |              |                         | <sup>3</sup> Indicators of           | hydrophytic vegetation and         |
|                |                        |             |                           |               |              |                         |                                      | rology must be present,            |
| Stripped N     | Matrix (SO)            |             | Red Parent Ma             | ateriai (F21) | ) (MLRA 12   | 7, 147)                 | uniess dis                           | sturbed or problematic.            |
| Restrictive La | ayer (if observed):    |             |                           |               |              |                         |                                      |                                    |
| Туре:          |                        |             |                           |               |              |                         |                                      |                                    |
| Depth (inch    | nes):                  |             |                           |               |              |                         | Hydric Soil Present?                 | Yes $ullet$ No $igodot$            |
| Remarks:       |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
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|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |
|                |                        |             |                           |               |              |                         |                                      |                                    |

| Project/Site: Telesto Solar Project                            | City/County:                                | Cecilia/Hardin       | Sampli  | ing Date: 23-Feb-21      |
|--|---|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |   | State: KY            | Sampling Poi  | nt: D-012                |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow                                | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                            | ncave, convex, none) | : flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68474                                    | Long.:               | -85.96036   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |   |                      | NWI classification:   | N/A                      |
|  | ear? Yes •<br>Iy disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" present?<br>ain any answers in Re |                          |
| Summary of Findings - Attach site map showing s                | ampling po                                  | oint locations, t    | ransects, impo  | ortant features, etc.    |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----|---------------------------------------|---|
| Remarks:  |                         |    |                                       |   |
|   |                         |    |                                       |   |
|   |                         |    |                                       |   |
|   |                         |    |                                       |   |

| Wetland Hydrology Indicate                         | ors:                  |            |  |                    | Secondary Indicators (minimum of two required) |
|--|-----------------------|------------|--|--------------------|--|
| Primary Indicators (minimu                         | um of one             | required;  | check all that apply)                  |                    | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                       |            | True Aquatic Plants (B14)              |                    | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                       |            | Hydrogen Sulfide Odor (C1)             |                    | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                       |            | Oxidized Rhizospheres along Living     | Roots (C3)         | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                       |            | Presence of Reduced Iron (C4)          |                    | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                       |            | Recent Iron Reduction in Tilled Soils  | s (C6)             | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                       |            | Thin Muck Surface (C7)                 |                    | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                       |            | Other (Explain in Remarks)             |                    | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                       |            |  |                    | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (          | B7)        |  |                    | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                     |            |  |                    | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                       |            |  |                    | FAC-neutral Test (D5)                          |
| Field Observations:                                | $\sim$                |            |  |                    |  |
| Surface Water Present?                             | Yes $\bigcirc$        | No 🖲       | Depth (inches):                        |                    |  |
| Water Table Present?                               | $_{\rm Yes} \bigcirc$ | No 🖲       | Depth (inches):                        |                    | rology Present? Yes 🔿 No 🖲                     |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes} \bigcirc$ | No 🖲       | Depth (inches):                        | Wetland Hyd        | rology Present? Yes $\bigcirc$ No $ullet$      |
| Describe Recorded Data (st                         | ream gaug             | je, monito | ring well, aerial photos, previous ins | pections), if avai | lable:   |
|  |                       |            |  |                    |  |
| Remarks:   |                       |            |  |                    |  |
| No hydro characteristics.                          |                       |            |  |                    |  |
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|  | Dominant<br>Species? |               |           | Sampling Point: D-012  |  |  |
|--|----------------------|---------------|-----------|--|--|--|
|  | Absolute             | Rel.Strat.    | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              | Cover         | Status    | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 75                   | ✓ 78.9%       | FACU      | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis occidentalis                                     | 15                   | 15.8%         | FACU      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |                      | 5.3%          | FACW      | Species Across All Strata: (B)   |  |  |
| 4  |                      | 0.0%          |           | Percent of dominant Species  |  |  |
| 5  |                      | 0.0%          |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)  |  |  |
| 6  |                      | 0.0%          |           |  |  |  |
| 7  | _                    | 0.0%          |           | Prevalence Index worksheet:<br>Total % Cover of: Multiply by:  |  |  |
| 8  |                      | 0.0%          |           |  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95 =                 |               |           | <b>OBL</b> species $0 \times 1 = 0$  |  |  |
| 1  | 0                    | 0.0%          |           | FACW species $5 \times 2 = 10$   |  |  |
| 2  | 0                    | 0.0%          |           | FAC species $0 \times 3 = 0$   |  |  |
| 3  | 0                    | 0.0%          |           | FACU species $90 \times 4 = 360$   |  |  |
| 4  | 0                    | 0.0%          |           | UPL species $0 \times 5 = 0$   |  |  |
| 5  | 0                    | 0.0%          |           | Column Totals: (A) (B)   |  |  |
| 6  | 0                    | 0.0%          |           | Prevalence Index = B/A = 3.895   |  |  |
| 7  | 0                    | 0.0%          |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  | 0                    | 0.0%          |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  | 0                    | 0.0%          |           | Dominance Test is > 50%  |  |  |
| 10   | 0                    | 0.0%          |           | Prevalence Index is $\leq 3.0^{1}$   |  |  |
| Shrub Stratum (Plot size:)                                 | :                    | = Total Cover |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1  |                      | 0.0%          |           | data in Remarks or on a separate sheet)  |  |  |
| 2  |                      | 0.0%          |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |                      | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  | 0                    | 0.0%          |           | be present, unless disturbed or problematic.   |  |  |
| 5  | 0                    | 0.0%          |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0                    | 0.0%          |           | Four Vegetation Strata:  |  |  |
| 7  | 0                    | 0.0%          |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |  |  |
| Herb Stratum_ <sup>(Plot size:</sup> )                     | :                    | = Total Cover |           | regardless of height.  |  |  |
| 1  |                      | 0.0%          |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2.   | 0                    | 0.0%          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3  | 0                    | 0.0%          |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |
| 5  | 0                    | 0.0%          |           | in neight.   |  |  |
| 6  | 0                    | 0.0%          |           | Five Vegetation Strata:  |  |  |
| 7  | 0                    | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  | 0                    | 0.0%          |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |
| 9  | 0                    | 0.0%          |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                                |  |  |
| 10   | 0                    | 0.0%          |           | vines, approximately 20 ft (6 m) or more in height and less  |  |  |
| 11   | 0                    | 0.0%          |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |                      | 0.0%          |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |
| _Woody Vine Stratum_ (Plot size:)                          | 0 :                  | = Total Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0                    | 0.0%          |           | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (          |  |  |
| 2  | 0                    | 0.0%          |           | m) in height.  |  |  |
| 3  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 4  | _                    | 0.0%          |           | height.  |  |  |
| 5  | 0                    | 0.0%          |           | Hydrophytic  |  |  |
| 6  | 0                    | 0.0%          |           | Vegetation   |  |  |
|  | 0                    | = Total Cove  | r İ       | Present? Yes V No 🛡  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | st )                 |               |           |  |  |  |

| Profile Descr | iption: (Describe to   | the depth ne | eded to documen    | t the indica  | ator or con       | nfirm the a           | absence of indicators.)                             |   |
|---------------|------------------------|--------------|--------------------|---------------|-------------------|-----------------------|---|---|
| Depth         | Matrix                 |              |                    | dox Featu     |                   |                       |   |   |
| (inches)      | Color (moist)          | <u>%</u>     | Color (moist)      | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture   | Remarks   |
|               | 10YR 3/3               | 100          |                    |               |                   |                       | Loam  |   |
|               | u                      |              |                    |               |                   |                       | p   |   |
|               |                        |              |                    |               |                   |                       |   |   |
| -             |                        |              |                    |               |                   |                       |   |   |
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|               |                        |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |
| 1 T           | Doplatia               | DM Doduce    |                    | Coato         | L Cond Cro        | - 21 000              | " Di Dara Lining M Ma                               |   |
|               |                        | n. RM=Reauce | d Matrix, CS=Cover | ed or Coate   | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma                          |   |
| Hydric Soil I |                        |              |                    | (03)          |                   |                       | Indicators for Proble                               | matic Hydric Soils <sup>3</sup> :                     |
|               |                        |              | Dark Surface (     | • •           |                   | 117 110)              | 2 cm Muck (A10)                                     | (MLRA 147)  |
| Black Hist    | bedon (A2)             |              | Thin Dark Surf     |               |                   |                       | Coast Prairie Redo                                  | ox (A16)  |
|               | sulfide (A4)           |              | Loamy Gleyed       |               | LKA 147, i        | 48)                   | (MLRA 147,148)                                      |   |
|               | Layers (A5)            |              | Depleted Matri     |               |                   |                       | Piedmont Floodpla<br>(MLRA 136, 147)                | ain Soils (F19)                                       |
|               | k (A10) (LRR N)        |              | Redox Dark Su      |               |                   |                       |   | 0 ( /TE10)  |
|               | Below Dark Surface (A  | 11)          | Depleted Dark      |               | 'n                |                       | Very Shallow Dark                                   |   |
|               | k Surface (A12)        | 11)          | Redox Depress      |               | /                 |                       | Other (Explain in F                                 | Remarks)  |
|               | ck Mineral (S1) (LRR N | I            | Iron-Manganes      |               | F12) (LRR I       | N,                    |   |   |
| MLRA 147      |                        | 1,           | MLRA 136)          |               |                   |                       |   |   |
| Sandy Gle     | eyed Matrix (S4)       |              | Umbric Surface     |               |                   |                       | <sup>3</sup> Indicators of k                        | L. b. disconstation and                               |
| Sandy Ree     |                        |              | Piedmont Floo      | dplain Soils  | (F19) (MLF        | RA 148)               | <ul> <li>Indicators of r<br/>wetland hyd</li> </ul> | nydrophytic vegetation and<br>rology must be present, |
| Stripped M    | Matrix (S6)            |              | Red Parent Ma      | aterial (F21) | (MLRA 127         | 7, 147)               |   | sturbed or problematic.                               |
| Restrictive L | ayer (if observed):    |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |
| Depth (incl   |                        |              |                    |               |                   |                       | Hydric Soil Present?                                | Yes 🔾 No 🖲  |
| Remarks:      |                        |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |
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|               |                        |              |                    |               |                   |                       |   |   |
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|               |                        |              |                    |               |                   |                       |   |   |
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|               |                        |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |
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|               |                        |              |                    |               |                   |                       |   |   |
|               |                        |              |                    |               |                   |                       |   |   |

| Project/Site: Telesto Solar Project                            | City/County:                             | Cecilia/Hardin       | Samplii   | ng Date: 23-Feb-21       |
|--|--|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling Poir   | nt: D-013                |
| Investigator(s):   | Section, Town                            | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                         | ncave, convex, none) | flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68515                                 | Long.:               | -85.96023   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classification:   | N/A                      |
|  | ear? Yes<br>ly disturbed?<br>roblematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" present?<br>ain any answers in Re |                          |
| Summary of Findings - Attach site map showing s                | ampling po                               | int locations, t     | ransects, impo  | rtant features, etc.     |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

|  | ors:                   |            |   | Secondary Indicators (minimum of two required) |
|--|------------------------|------------|---|--|
| Primary Indicators (minimu                         | um of one              | required;  | check all that apply)                               | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                        |            | True Aquatic Plants (B14)                           | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                        |            | Hydrogen Sulfide Odor (C1)                          | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                        |            | Oxidized Rhizospheres along Living Roots (C3)       | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                        |            | Presence of Reduced Iron (C4)                       | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                        |            | Recent Iron Reduction in Tilled Soils (C6)          | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                        |            | Thin Muck Surface (C7)                              | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                        |            | Other (Explain in Remarks)                          | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                        |            |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (           | B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                      |            |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                        |            |   | FAC-neutral Test (D5)                          |
| Field Observations:                                |                        | 0          |   |  |
| Surface Water Present?                             | Yes $\bigcirc$         | No 🖲       | Depth (inches):                                     |  |
| Water Table Present?                               | Yes $\bigcirc$         | No 🖲       | Depth (inches):                                     | Hydrology Present? Yes O No 🖲                  |
| Saturation Present?<br>(includes capillary fringe) | $_{ m Yes}$ $\bigcirc$ | No 🖲       | Depth (inches):                                     | Hydrology Present? Yes 🔾 No 🖲                  |
| Describe Recorded Data (st                         | ream gaug              | ge, monito | ring well, aerial photos, previous inspections), if | available:                                     |
|  |                        |            |   |  |
| Remarks:   |                        |            |   |  |
| Normanity.   |                        |            |   |  |
| No hydro characteristics.                          |                        |            |   |  |
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|  |                        |            |   |  |

|  | Dominant<br>Species? |               |           | Sampling Point: D-013  |  |  |
|--|----------------------|---------------|-----------|--|--|--|
|  | Absolute             | Rel.Strat.    | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              | Cover         | Status    | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 70                   | 77.8%         | FACU      | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis occidentalis                                     | 10                   | 11.1%         | FACU      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |                      | 11.1%         | FACW      | Species Across All Strata: (B)   |  |  |
| 4  |                      | 0.0%          |           | Percent of dominant Species  |  |  |
| 5  |                      | 0.0%          |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)  |  |  |
| 6  |                      | 0.0%          |           |  |  |  |
| 7  | _                    | 0.0%          |           | Prevalence Index worksheet:  |  |  |
| 8  |                      | 0.0% 0.0%     |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90 =                 |               |           | <b>OBL</b> species $0 \times 1 = 0$  |  |  |
| 1  | 0                    | 0.0%          |           | FACW species $10 \times 2 = 20$  |  |  |
| 2  | 0                    | 0.0%          |           | FAC species $0 \times 3 = 0$   |  |  |
| 3  | 0                    | 0.0%          |           | FACU species $80 \times 4 = 320$   |  |  |
| 4  | 0                    | 0.0%          |           | UPL species $0 \times 5 = 0$   |  |  |
| 5  | 0                    | 0.0%          |           | Column Totals: (A) (B)   |  |  |
| 6  | 0                    | 0.0%          |           | Prevalence Index = B/A = 3.778   |  |  |
| 7  | 0                    | 0.0%          |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  | 0                    | 0.0%          |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  | 0                    | 0.0%          |           | Dominance Test is > 50%  |  |  |
| 10   | 0                    | 0.0%          |           | Prevalence Index is $\leq 3.0^{1}$   |  |  |
| Shrub Stratum (Plot size:)                                 | :                    | = Total Cover |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1  |                      | 0.0%          |           | data in Remarks or on a separate sheet)  |  |  |
| 2  |                      | 0.0%          |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |                      | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  | 0                    | 0.0%          |           | be present, unless disturbed or problematic.   |  |  |
| 5  | 0                    | 0.0%          |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0                    | 0.0%          |           | Four Vegetation Strata:  |  |  |
| 7  | 0                    | 0.0%          |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |  |  |
| Herb Stratum_ <sup>(Plot size:</sup> )                     | :                    | = Total Cover |           | regardless of height.  |  |  |
| 1  |                      | 0.0%          |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2.   | 0                    | 0.0%          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3.   | 0                    | 0.0%          |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |
| 5  | 0                    | 0.0%          |           | in neight.   |  |  |
| 6  | 0                    | 0.0%          |           | Five Vegetation Strata:  |  |  |
| 7  | 0                    | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  | 0                    | 0.0%          |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |
| 9  | 0                    | 0.0%          |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                                |  |  |
| 10   | 0                    | 0.0%          |           | vines, approximately 20 ft (6 m) or more in height and less  |  |  |
| 11   | 0                    | 0.0%          |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |                      | 0.0%          |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |
| _Woody Vine Stratum_ (Plot size:)                          | :                    | = Total Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0                    | 0.0%          |           | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (          |  |  |
| 2  | 0                    | 0.0%          |           | m) in height.  |  |  |
| 3  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 4  | _                    | 0.0%          |           | height.  |  |  |
| 5  | 0                    | 0.0%          |           | Hydrophytic  |  |  |
| 6  | 0                    | 0.0%          |           | Vegetation   |  |  |
|  | 0                    | = Total Cover | •         | Present? Yes V No 🛡  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | st )                 |               |           |  |  |  |

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)                                  |               |     |  |              |           |                  |  |                                    |  |
|--|---------------|-----|--|--------------|-----------|------------------|--|------------------------------------|--|
| Depth  | Matrix        | 1   |  |              |           |                  |  |                                    |  |
| (inches)   | Color (moist) | %   | Color (moist)  | %            | Tvpe      | Loc <sup>2</sup> | Texture  | Remarks                            |  |
| 0-21   | 10YR 3/3      | 100 |  |              |           |                  | Loam   |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  | ,v   |                                    |  |
|  |               | · . |  |              |           |                  | ,v   |                                    |  |
|  |               |     |  |              |           |                  | р  |                                    |  |
|  |               |     |  |              |           |                  | ,, m   |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
| 1  |               |     |  |              |           |                  |  |                                    |  |
| <sup>1</sup> Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix |               |     |  |              |           |                  |  |                                    |  |
| Hydric Soil I  |               |     |  |              |           |                  | Indicators for Proble  | ematic Hydric Soils <sup>3</sup> : |  |
|  | •             |     | Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147,148) Thin Dark Surface (S9) (MLRA 147, 148) |              |           |                  | <ul> <li>2 cm Muck (A10) (MLRA 147)</li> <li>Coast Prairie Redox (A16)<br/>(MLRA 147,148)</li> </ul> |                                    |  |
|  | bedon (A2)    |     |  |              |           |                  |  |                                    |  |
| Black Hist   |               |     |  |              |           | 48)              |  |                                    |  |
|  | Sulfide (A4)  |     | Loamy Gleyed   |              |           |                  | Piedmont Floodpla  | ain Soils (F19)                    |  |
| _  | Layers (A5)   |     | Depleted Matrix (F3)     Redox Dark Surface (F6)   |              |           |                  | (MLRA 136, 147)  | ·                                  |  |
| 2 cm Muck (A10) (LRR N)  |               |     | Depleted Dark  | • • •        | n         |                  | Very Shallow Dark Surface (TF12)   |                                    |  |
| Depleted Below Dark Surface (A11)     Thick Dark Surface (A12)   |               |     | Redox Depress  |              | )         |                  | Other (Explain in  | Remarks)                           |  |
| _  | . ,           |     |  | =12) (I RR I | M         |                  |  |                                    |  |
| Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)  |               |     | Iron-Manganese Masses (F12) (LRR N,<br>MLRA 136)   |              |           |                  |  |                                    |  |
| Sandy Gleyed Matrix (S4)   |               |     | Umbric Surface (F13) (MLRA 136, 122)   |              |           |                  | <sup>3</sup> Indicators of I   | hydrophytic vegetation and         |  |
| Sandy Redox (S5)   |               |     |  |              |           |                  | wetland hyd  | rology must be present,            |  |
| Stripped Matrix (S6)   |               |     | Red Parent Ma  | terial (F21) | (MLRA 127 | /, 147)          | unless disturbed or problematic.   |                                    |  |
| Restrictive Layer (if observed):   |               |     |  |              |           |                  |  |                                    |  |
| Туре:  |               |     |  |              |           |                  |  |                                    |  |
| Depth (inches):  |               |     |  |              |           |                  | Hydric Soil Present?   | Yes 🔾 No 🖲                         |  |
| Remarks:   |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |
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|  |               |     |  |              |           |                  |  |                                    |  |
|  |               |     |  |              |           |                  |  |                                    |  |

| Project/Site: Telesto Solar Project                            | City/County:                                 | Cecilia/Hardin       | Sampli  | ng Date: 23-Feb-21       |
|--|--|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling Poir   | nt: D-014                |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow                                 | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                             | ncave, convex, none) | flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68529                                     | Long.:               | -85.95955   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classification:   | N/A                      |
|  | ear? Yes •<br>tly disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" present?<br>ain any answers in Re |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |                             |
|---------------------------------|-------|------|---------------------|-----------------------------|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes $\bullet$ No $\bigcirc$ |
| Wetland Hydrology Present?      | Yes 🖲 | No O | within a Wetland?   |                             |
| Remarks:                        |       |      |                     |                             |
| Wet-6                           |       |      |                     |                             |
|                                 |       |      |                     |                             |
|                                 |       |      |                     |                             |

| Wetland Hydrology Indicators:                                 |   | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one require                    | Surface Soil Cracks (B6)                                |  |
| Surface Water (A1)  | Sparsely Vegetated Concave Surface (B8)                 |  |
| ✓ High Water Table (A2)                                       | Hydrogen Sulfide Odor (C1)                              | Drainage Patterns (B10)                        |
| Saturation (A3)   | Oxidized Rhizospheres along Living Roots (C3)           | Moss Trim Lines (B16)                          |
| Water Marks (B1)  | Presence of Reduced Iron (C4)                           | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Recent Iron Reduction in Tilled Soils (C6)              | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Thin Muck Surface (C7)                                  | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                       | Other (Explain in Remarks)                              | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)                     |   | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)                                   |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   |   | ✓ FAC-neutral Test (D5)                        |
| Field Observations:   |   |  |
| Surface Water Present? Yes • No                               | Depth (inches): <u>6</u>                                |  |
| Water Table Present? Yes  No                                  |   | Hydrology Present? Yes $\bullet$ No $\bigcirc$ |
| Saturation Present?<br>(includes capillary fringe) Yes O No ( | Depth (inches):   | Hydrology Present? Yes 🔍 No 🔾                  |
| Describe Recorded Data (stream gauge, mo                      | nitoring well, aerial photos, previous inspections), if | available:                                     |
|   |   |  |
| Remarks:  |   |  |
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| ,,,  | Dominant |               |                   |           | Sampling Point: D-014   |  |  |
|--|----------|---------------|-------------------|-----------|---|--|--|
|  | Absolute | Rel.          | cies? -<br>Strat. | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |               | er                | Status    | Number of Dominant Species  |  |  |
| 1. Acer rubrum   | 60       |               | 66.7%             | FAC       | That are OBL, FACW, or FAC: (A)   |  |  |
| 2. Celtis laevigata  | 20       |               | 22.2%             | FACW      | Total Number of Dominant  |  |  |
| 3. Ulmus americana   |          |               | 11.1%             | FACW      | Species Across All Strata: <u>2</u> (B)   |  |  |
| 4  |          |               | 0.0%              |           | Dereent of dominant Species   |  |  |
| 5  |          |               | 0.0%              |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |  |  |
| 6  |          |               | 0.0%              |           |   |  |  |
| 7  |          |               | 0.0%              |           | Prevalence Index worksheet:   |  |  |
| 8  | 0        | <u> </u>      | 0.0%              |           | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = lota        | al Cover          |           | OBL species x 1 =   |  |  |
| 1  |          |               | 0.0%              |           | FACW species $30$ x 2 = $60$  |  |  |
| 2.   |          |               | 0.0%              |           | FAC species K 3 = 180   |  |  |
| 3  |          |               | 0.0%              |           | FACU species $0 \times 4 = 0$   |  |  |
| 4.   | •        |               | 0.0%              |           | UPL species x 5 =   |  |  |
| 5  |          |               | 0.0%              |           | Column Totals: <u>90</u> (A) <u>240</u> (B)   |  |  |
| 6  | _        |               | 0.0%              |           | Prevalence Index = B/A =2.667   |  |  |
| 7  | -        |               | 0.0%              |           |   |  |  |
| 8  |          |               | 0.0%              |           | Hydrophytic Vegetation Indicators:<br>Rapid Test for Hydrophytic Vegetation   |  |  |
| 9  | _        |               | 0.0%              |           |   |  |  |
| 10   |          |               | 0.0%              |           |   |  |  |
|  |          | = Tota        | al Cover          |           | ✓ Prevalence Index is $\leq 3.0^{-1}$   |  |  |
| Shrub Stratum (Plot size:)                                 |          |               | 0.0%              |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 1  |          |               | 0.0%              |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 2  |          |               | 0.0%              |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 3  |          |               | 0.0%              |           | be present, unless disturbed or problematic.  |  |  |
| 4  |          |               | 0.0%              |           | Definition of Vegetation Strata:  |  |  |
| 5  |          |               | 0.0%              |           | Four Vegetation Strata:   |  |  |
| 6  | 0        |               | 0.0%              |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
| 7  |          |               | al Cover          |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |
| Herb Stratum (Plot size:)                                  |          | _ 101         |                   |           | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1  | ·        |               | 0.0%              |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2  | 0        |               | 0.0%              |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0        |               | 0.0%              | . <u></u> | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4  | 0        |               | 0.0%              |           | in height.  |  |  |
| 5  | 0        |               | 0.0%              |           |   |  |  |
| 6  |          |               | 0.0%              |           | Five Vegetation Strata:   |  |  |
| 7  |          |               | 0.0%              |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  | 0        |               | 0.0%              |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9  | 0        |               | 0.0%              |           | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10   | 0        |               | 0.0%              |           | vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   |          |               | 0.0%              |           | than 3 in. (7.6 cm) DBH.<br>Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12   |          |               | 0.0%              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                            |          | = 10ta        | al Cover          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0        | $\square_{-}$ | 0.0%              |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2  | 0        |               | 0.0%              |           | m) in height.   |  |  |
| 3  | 0        |               | 0.0%              |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  |          |               | 0.0%              |           | height.   |  |  |
| 5  | 0        |               | 0.0%              |           | Hydrophytic   |  |  |
| 6  | 0        |               | 0.0%              |           | Vegetation  |  |  |
|  | 0        | = Tot         | al Cove           | •         | Present? Yes No   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |               |                   |           |   |  |  |

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                         |              |                     |              |              |                        |  |                                   |                       |  |
|---|-------------------------|--------------|---------------------|--------------|--------------|------------------------|--|-----------------------------------|-----------------------|--|
| Depth   | Matrix                  |              | Redox Features      |              |              |                        | _  | _                                 |                       |  |
| (inches)  | <u>Color (moist)</u>    |              | Color (moist)       | %            |              | Loc <sup>2</sup>       | Texture  | Rema                              | arks                  |  |
|   | 10YR 3/1                | 80           | 5YR 4/6             | 20           | C            | M                      | Loam   |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        | ·  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
| 1   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         | on. RM=Reduc | ed Matrix, CS=Cover | ed or Coate  | ed Sand Gra  | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma   | atrix                             |                       |  |
| Hydric Soil I   |                         |              |                     | >            |              |                        | Indicators for Proble  | matic Hydric                      | Soils <sup>3</sup> :  |  |
|   |                         |              | Dark Surface (      | ,            |              |                        | 2 cm Muck (A10)  | (MLRA 147)                        |                       |  |
|   | bedon (A2)              |              | Polyvalue Belo      |              |              |                        | Coast Prairie Redo   | x (A16)                           |                       |  |
| Black Hist  | ic (A3)<br>Sulfide (A4) |              | Thin Dark Surf      |              |              | 48)                    | (MLRA 147,148)   |                                   |                       |  |
|   | Layers (A5)             |              | Loamy Gleyed        |              |              |                        | Piedmont Floodpla  | in Soils (F19)                    |                       |  |
|   | k (A10) (LRR N)         |              | Depleted Matri      |              |              |                        | (MLRA 136, 147)  |                                   |                       |  |
|   | Below Dark Surface (A   | 11)          | Depleted Dark       |              | 7)           |                        | Uvery Shallow Dark Surface (TF12)                                      |                                   |                       |  |
|   | k Surface (A12)         | )            | Redox Depress       |              | ,            |                        |  |                                   |                       |  |
|   | ck Mineral (S1) (LRR N  | J            | Iron-Manganes       |              | (F12) (LRR I | N,                     |  |                                   |                       |  |
| MLRA 147  |                         | ν,           | MLRA 136)           |              |              |                        |  |                                   |                       |  |
| Sandy Gle   | eyed Matrix (S4)        |              | Umbric Surface      | e (F13) (ML  | RA 136, 12   | 22)                    | 3  |                                   |                       |  |
| Sandy Re  | dox (S5)                |              | Piedmont Floo       | dplain Soils | (F19) (MLF   | RA 148)                | <sup>3</sup> Indicators of h<br>wetland hydr                           | nydrophytic veg<br>roloav must be | petation and present. |  |
| Stripped M  | Matrix (S6)             |              | Red Parent Ma       | terial (F21) | ) (MLRA 12   | 7, 147)                | wetland hydrology must be present,<br>unless disturbed or problematic. |                                   |                       |  |
| Destrictive L   | ayer (if observed):     |              |                     |              |              |                        |  |                                   |                       |  |
|   | ayer (il observed):     |              |                     |              |              |                        |  |                                   |                       |  |
| Depth (incl   |                         |              |                     |              |              |                        | Hydric Soil Present?   | Yes 🖲                             | No 🔿                  |  |
| Remarks:  |                         |              |                     |              |              |                        |  |                                   |                       |  |
| Remarks.  |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |
|   |                         |              |                     |              |              |                        |  |                                   |                       |  |

| Project/Site: Telesto Solar Project                             | City/County:     | Cecilia/Hardin      | Sampl   | ing Date: 23-Feb-21      |
|---|------------------|---------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                      |                  | State: KY           | Sampling Poi  | int: D-015               |
| Investigator(s): J. Stelly and C. Hoffman                       | Section, Tow     | nship, Range: S     | т   | R                        |
| Landform (hillslope, terrace, etc.):                            | Local relief (co | ncave, convex, none | ):  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                            | 37.68552         | Long.:              | -85.95905   | Datum: WGS 1984          |
| Soil Map Unit Name: SnB - Sonora silt loam, 2-6 percent slopes. |                  |                     | NWI classification:   | N/A                      |
|   | ear? Yes •       | Are "Normal Cire    | olain in Remarks.)<br>cumstances" present<br>ain any answers in R |                          |
| Summary of Findings - Attach site man showing s                 | ampling or       | • • •               | 5   |                          |

| Summary or Findings - Attach site map showing sampli | ing point locations, transects, important reatures, etc. |
|--|--|
| $\sim$ $\sim$ $\sim$ $\sim$                          |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 🖲<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $ullet$ |
|---|-------------------|----------------------|---------------------------------------|---------------------------|
| Remarks:  |                   |                      |                                       |                           |
|   |                   |                      |                                       |                           |
|   |                   |                      |                                       |                           |
|   |                   |                      |                                       |                           |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required) |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)                                  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)                                       | Moss Trim Lines (B16)                          |
| Water Marks (B1)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   | FAC-neutral Test (D5)                          |
| Field Observations:   |  |
| Surface Water Present? Yes O No O Depth (inches):   |  |
| Water Table Present? Yes O No O Depth (inches):   | Irology Present? Yes 🔿 No 🖲                    |
| Saturation Present? (includes capillary fringe) Yes O No O Depth (inches):                          | Irology Present? Yes 🔾 No 🖲                    |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava | ilable:  |
|   |  |
| Remarks:  |  |
| none.   |  |
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|  |          | Dominant<br>  |                     | Sampling Point: D-015   |  |  |
|--|----------|---------------|---------------------|---|--|--|
|  | Absolute | Rel.Strat.    | Indicator<br>Status | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover         | Status              | Number of Dominant Species  |  |  |
| 1  | 0        | 0.0%          |                     | That are OBL, FACW, or FAC: (A)   |  |  |
| 2  | -        | 0.0%          |                     | Total Number of Dominant  |  |  |
| 3  |          | 0.0%          |                     | Species Across All Strata: (B)  |  |  |
| 4  | -        | 0.0%          |                     | Dereent of dominant Species   |  |  |
| 5  |          | 0.0%          |                     | Percent of dominant Species<br>That Are OBL, FACW, or FAC:0.0% (A/B)  |  |  |
| 6  |          | 0.0%          |                     |   |  |  |
| 7  |          | 0.0%          |                     | Prevalence Index worksheet:   |  |  |
| 8  |          | 0.0%          |                     | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover |                     | OBL species x 1 =   |  |  |
| <u></u>  |          | 0.0%          |                     | FACW species $0 \times 2 = 0$   |  |  |
| 2  |          | 0.0%          |                     | FAC species $0 \times 3 = 0$  |  |  |
| 3.   |          | 0.0%          |                     | FACU species x 4 =  |  |  |
| 4  |          | 0.0%          |                     | UPL species $50 \times 5 = 250$   |  |  |
| 5  | -        | 0.0%          |                     | Column Totals: (A) (B)  |  |  |
| 6  | -        | 0.0%          |                     | Prevalence Index = B/A = 5.000  |  |  |
| 7  | -        | 0.0%          |                     |   |  |  |
| 8  |          | 0.0%          |                     | Hydrophytic Vegetation Indicators:  |  |  |
| 9  |          | 0.0%          |                     | Rapid Test for Hydrophytic Vegetation   |  |  |
| 10.  |          | 0.0%          |                     | Dominance Test is > 50%   |  |  |
|  |          | = Total Cover |                     | Prevalence Index is $\leq 3.0^{-1}$   |  |  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        |               |                     | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 2  | 0        | 0.0%          |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3  |          | 0.0%          |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4  |          | 0.0%          |                     | be present, unless disturbed or problematic.  |  |  |
| 5  |          | 0.0%          |                     | Definition of Vegetation Strata:  |  |  |
| 6  |          | 0.0%          |                     | Four Vegetation Strata:   |  |  |
| 7  | 0        | 0.0%          |                     | Tree stratum – Consists of woody plants, excluding vines, 3 i   |  |  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover |                     | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |
|  | 50       | ✓ 100.0%      | UPL                 | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1. Zea mays  | 0        | 0.0%          | UPL                 | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2  | 0        | 0.0%          |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0        | 0.0%          |                     | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4  | 0        | 0.0%          |                     | in height.  |  |  |
| 5  | 0        | 0.0%          |                     |   |  |  |
| 6  |          | 0.0%          |                     | Five Vegetation Strata:   |  |  |
| 7  |          | 0.0%          |                     | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  |          |               |                     | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9  | 0        | 0.0%          |                     | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10   | 0        |               |                     | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |  |  |
| 11   | 0        |               |                     | Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12   | 0        | 0.0% 0.0%     |                     | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                            |          |               |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0        | 0.0%          |                     | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2  | 0        | 0.0%          |                     | m) in height.   |  |  |
| 3  | 0        | 0.0%          |                     | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  | 0        | 0.0%          |                     | height.   |  |  |
| 5  | 0        | 0.0%          |                     | Hydrophytic   |  |  |
| 6  | 0        | 0.0%          |                     | Vegetation  |  |  |
|  | 0        | = Total Cove  | r                   | Present? Yes V No V   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |               |                     |   |  |  |

ep

| Profile Desc             | ription: (Describe to              | the depth n | eeded to document          | t the indica  | itor or co | nfirm the a            | bsence of indicators.)                      |   |  |
|--------------------------|------------------------------------|-------------|----------------------------|---------------|------------|------------------------|---|---|--|
| Depth                    | Matrix                             |             |                            | dox Featur    |            |                        |   |   |  |
| (inches)                 | Color (moist)                      |             | Color (moist)              | %             |            | Loc <sup>2</sup>       | Texture                                     | Remarks   |  |
|                          | 10YR 3/3                           | 100         |                            |               |            |                        | Loam  |   |  |
|                          |                                    | ,           |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
| <u>.</u>                 |                                    |             | <u>_</u>                   |               |            |                        |   |   |  |
|                          | ·                                  |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
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|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletio            | n. RM=Reduc | ed Matrix, CS=Cover        | ed or Coated  | d Sand Gra | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma                  | atrix   |  |
| Hydric Soil              |                                    |             | _                          |               |            |                        | Indicators for Proble                       | matic Hydric Soils <sup>3</sup> :                     |  |
| Histosol                 | . ,                                |             | Dark Surface (             |               |            |                        | 2 cm Muck (A10)                             |   |  |
| Histic Ep                | ipedon (A2)                        |             | Polyvalue Belo             | w Surface (S  | 88) (MLRA  | 147,148)               | Coast Prairie Redo                          |   |  |
| Black His                |                                    |             | Thin Dark Surf             | ace (S9) (ML  | _RA 147, 1 | 48)                    | (MLRA 147,148)                              | (A16)   |  |
|                          | n Sulfide (A4)                     |             | Loamy Gleyed               | Matrix (F2)   |            |                        | Piedmont Floodpla                           | ain Soils (F19)                                       |  |
| Stratified               | Layers (A5)                        |             | Depleted Matri             | x (F3)        |            |                        | (MLRA 136, 147)                             |   |  |
| 2 cm Mu                  | ck (A10) (LRR N)                   |             | Redox Dark Su              | irface (F6)   |            |                        | Very Shallow Dark                           | Surface (TF12)  |  |
| Depleted                 | Below Dark Surface (A              | 11)         | Depleted Dark              | Surface (F7)  | )          |                        | Other (Explain in Remarks)                  |   |  |
| Thick Da                 | rk Surface (A12)                   |             | Redox Depress              | sions (F8)    |            |                        |   |   |  |
| Sandy M<br>MLRA 14       | uck Mineral (S1) (LRR N<br>7, 148) | l,          | Iron-Manganes<br>MLRA 136) | se Masses (F  | 12) (LRR I | ١,                     |   |   |  |
| Sandy Gl                 | leyed Matrix (S4)                  |             | Umbric Surface             | e (F13) (MLF  | RA 136, 12 | 2)                     | 2   |   |  |
| Sandy Re                 | edox (S5)                          |             | Piedmont Floo              | dplain Soils  | (F19) (MLF | RA 148)                | <sup>3</sup> Indicators of I<br>wetland byd | nydrophytic vegetation and<br>rology must be present, |  |
| Stripped                 | Matrix (S6)                        |             | Red Parent Ma              | iterial (F21) | (MLRA 127  | 7, 147)                |   | turbed or problematic.                                |  |
| Restrictive I            | Layer (if observed):               |             |                            |               |            |                        |   |   |  |
| Type:                    |                                    |             |                            |               |            |                        |   |   |  |
| Depth (inc               | ches):                             |             |                            |               |            |                        | Hydric Soil Present?                        | Yes 🔿 No 🖲  |  |
| Remarks:                 |                                    |             |                            |               |            |                        |   |   |  |
| Rendiks.                 |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |
|                          |                                    |             |                            |               |            |                        |   |   |  |

| Project/Site: Telesto Solar Project                            | City/County:                                 | Cecilia/Hardin       | Sampli  | ng Date: 23-Feb-21       |
|--|--|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling Poir   | nt: D-016                |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow                                 | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                             | ncave, convex, none) | flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68622                                     | Long.:               | -85.96126   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classification:   | PEM1C                    |
|  | ear? Yes •<br>tly disturbed?<br>problematic? | Are "Normal Circ     | ain in Remarks.)<br>umstances" present?<br>in any answers in Re |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |  |
|---------------------------------|-------|------|---------------------|------------|--|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No 🔾 |  |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |            |  |
| Remarks:                        |       |      |                     |            |  |
| Wet-7                           |       |      |                     |            |  |
|                                 |       |      |                     |            |  |
|                                 |       |      |                     |            |  |

| Wetland Hydrology Indicators:                              |  | Secondary Indicators (minimum of two required)              |
|--|--|---|
| Primary Indicators (minimum of one re                      | Surface Soil Cracks (B6)                                 |   |
| Surface Water (A1)   | Sparsely Vegetated Concave Surface (B8)                  |   |
| ✓ High Water Table (A2)                                    | Hydrogen Sulfide Odor (C1)                               | Drainage Patterns (B10)                                     |
| Saturation (A3)  | Oxidized Rhizospheres along Living Roots (C3)            | Moss Trim Lines (B16)                                       |
| Water Marks (B1)   | Presence of Reduced Iron (C4)                            | Dry Season Water Table (C2)                                 |
| Sediment Deposits (B2)                                     | Recent Iron Reduction in Tilled Soils (C6)               | Crayfish Burrows (C8)                                       |
| Drift deposits (B3)  | Thin Muck Surface (C7)                                   | Saturation Visible on Aerial Imagery (C9)                   |
| Algal Mat or Crust (B4)                                    | Other (Explain in Remarks)                               | Stunted or Stressed Plants (D1)                             |
| Iron Deposits (B5)   |  | Geomorphic Position (D2)                                    |
| Inundation Visible on Aerial Imagery (B7                   | )  | Shallow Aquitard (D3)                                       |
| ✓ Water-Stained Leaves (B9)                                |  | Microtopographic Relief (D4)                                |
| Aquatic Fauna (B13)  |  | FAC-neutral Test (D5)                                       |
| Field Observations:  |  |   |
| Surface Water Present? Yes •                               | No $\bigcirc$ Depth (inches): <u>6</u>                   |   |
| Water Table Present? Yes •                                 | No O Depth (inches): 0                                   |   |
| Saturation Present? Yes O N<br>(includes capillary fringe) | lo  Depth (inches):                                      | nd Hydrology Present? Yes $ullet$ No $igodoldsymbol{	imes}$ |
|  | , monitoring well, aerial photos, previous inspections), | if available:   |
|  |  |   |
| Remarks:   |  |   |
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| ,,,  |          |               | minant    |           | Sampling Point:   |
|--|----------|---------------|-----------|-----------|---|
|  | Absolute | Rel           | .ouut.    | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                  | % Cover  |               | /er       | Status    | Number of Dominant Species  |
| 1. Acer rubrum   | 60       | ✓             | 66.7%     | FAC       | That are OBL, FACW, or FAC: (A)   |
| 2. Celtis laevigata  | 20       |               | 22.2%     | FACW      | Total Number of Dominant  |
| 3. Ulmus americana   |          |               | 11.1%     | FACW      | Species Across All Strata: <u>2</u> (B)   |
| 4  |          |               | 0.0%      |           | Dereent of dominant Species   |
| 5  |          |               | 0.0%      |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |
| 6  |          |               | 0.0%      |           |   |
| 7  |          |               | 0.0%      |           | Prevalence Index worksheet:   |
| 8  | 0        | $\square_{-}$ | 0.0%      |           | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = Tot         | al Cover  |           | OBL species x 1 =   |
| 1  |          |               | 0.0%      |           | FACW species $30 \times 2 = 60$   |
| 2.   |          |               | 0.0%      |           | FAC species X 3 =180  |
| 3  |          |               | 0.0%      |           | FACU species x 4 =  |
| 4  | •        |               | 0.0%      |           | UPL species x 5 =   |
| 5  |          |               | 0.0%      |           | Column Totals: (A) (B)  |
| 6  | _        |               | 0.0%      |           | Prevalence Index = $B/A = 2.667$  |
| 7  | -        |               | 0.0%      |           |   |
| 8  |          |               | 0.0%      |           | Hydrophytic Vegetation Indicators:  |
| 9  | _        |               | 0.0%      |           | Rapid Test for Hydrophytic Vegetation   |
| 10   |          |               | 0.0%      |           | ✓ Dominance Test is > 50%   |
|  |          | <br>= Tot     | al Cover  |           | ✓ Prevalence Index is $\leq 3.0^{-1}$   |
| Shrub Stratum (Plot size:)                                 |          |               | 0.0%      |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |
| 1  |          |               | 0.0%      |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 2  |          |               | 0.0%      |           |   |
| 3  |          |               | 0.0%      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.                 |
| 4  |          |               | 0.0%      |           | Definition of Vegetation Strata:  |
| 5  |          |               | 0.0%      |           | Four Vegetation Strata:   |
| 6  | 0        |               | 0.0%      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |
| 7  |          |               | al Cover  |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |
| Herb Stratum (Plot size:)                                  |          | _ 101         |           |           | Sapling/shrub stratum – Consists of woody plants, excluding   |
| 1  | ·        |               | 0.0%      |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |
| 2  | 0        |               | 0.0%      | . <u></u> | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0        |               | 0.0%      | . <u></u> | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 4  | 0        |               | 0.0%      |           | in height.  |
| 5  | 0        |               | 0.0%      |           |   |
| 6  |          | <u> </u>      | 0.0%      |           | Five Vegetation Strata:   |
| 7  |          |               | 0.0%      |           | Tree - Woody plants, excluding woody vines, approximately 20  |
| 8  | 0        |               | 0.0%      |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |
| 9  | 0        |               | 0.0%      |           | Sapling stratum – Consists of woody plants, excluding woody   |
| 10   | 0        |               | 0.0%      |           | vines, approximately 20 ft (6 m) or more in height and less   |
| 11   |          |               | 0.0%      |           | than 3 in. (7.6 cm) DBH.<br>Shrub stratum – Consists of woody plants, excluding woody   |
| 12   |          |               | 0.0%      |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| Woody Vine Stratum (Plot size:)                            |          | = lot         | al Cover  |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 1  | 0        | $\Box_{-}$    | 0.0%      |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |
| 2  | 0        |               | 0.0%      |           | m) in height.   |
| 3  | 0        |               | 0.0%      |           | Woody vines – Consists of all woody vines, regardless of  |
| 4  |          |               | 0.0%      |           | height.   |
| 5  | 0        |               | 0.0%      |           | Hydrophytic   |
| 6  | 0        |               | 0.0%      |           | Hydrophytic<br>Vegetation   |
|  | 0        | = To          | tal Cover |           | Present? Yes • No O   |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |               |           |           |   |

| Profile Desc             | ription: (Describe to   | the depth r | needed to documer                    | nt the indi                | cator or co | nfirm the a            | absence of indicators.)   |                                  |  |  |
|--------------------------|-------------------------|-------------|--------------------------------------|----------------------------|-------------|------------------------|---|----------------------------------|--|--|
| Depth                    | Matrix                  |             | R                                    | edox Feati                 | ures        |                        |   |                                  |  |  |
| (inches)                 | Color (moist)           | %           | Color (moist)                        | %                          |             | Loc <sup>2</sup>       | Texture   | Remarks                          |  |  |
| 0-21                     | 10YR 3/1                | 80          | 5YR 4/6                              | 20                         | C           | M                      | Loam  |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          | p                       |             | p                                    |                            |             |                        | ,,  |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          | ·                       |             | p                                    |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        | ,   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             | <u>.</u>               |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletic | n. RM=Redu  | ced Matrix, CS=Cove                  | red or Coat                | ed Sand Gra | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M   | atrix                            |  |  |
| Hydric Soil              |                         |             |                                      |                            |             |                        | Indicators for Proble   |                                  |  |  |
| Histosol                 |                         |             | Dark Surface                         | (S7)                       |             |                        |   |                                  |  |  |
|                          | ipedon (A2)             |             | Polyvalue Bel                        | • •                        | (S8) (MLRA  | 147,148)               | 2 cm Muck (A10)   | (MLRA 147)                       |  |  |
| Black His                |                         |             | Thin Dark Sur                        |                            |             |                        | Coast Prairie Redo  | ox (A16)                         |  |  |
|                          | n Sulfide (A4)          |             | Loamy Gleyed                         |                            |             |                        | (MLRA 147,148)  |                                  |  |  |
|                          | Layers (A5)             |             | Depleted Mat                         |                            | ,           |                        | Piedmont Floodpla<br>(MLRA 136, 147)  | ain Soils (F19)                  |  |  |
|                          | ck (A10) (LRR N)        |             | Redox Dark S                         |                            |             |                        | _   | Surface (TE12)                   |  |  |
|                          | Below Dark Surface (A   | 11)         |                                      | Depleted Dark Surface (F7) |             |                        |   | Uery Shallow Dark Surface (TF12) |  |  |
|                          | rk Surface (A12)        | ,           |                                      | Redox Depressions (F8)     |             |                        |   | Remarks)                         |  |  |
|                          | uck Mineral (S1) (LRR N | J.          | Iron-Mangane                         | ese Masses                 | (F12) (LRR  | N,                     |   |                                  |  |  |
| MLRA 14                  | 17, 148)                | •,          | MLRA 136)                            |                            |             |                        |   |                                  |  |  |
| Sandy Gl                 | leyed Matrix (S4)       |             | Umbric Surface (F13) (MLRA 136, 122) |                            |             |                        | <sup>3</sup> Indicators of hydrophytic vogotation and                                       |                                  |  |  |
| Sandy Re                 | edox (S5)               |             | Piedmont Flo                         | odplain Soil               | s (F19) (ML | RA 148)                | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present, |                                  |  |  |
| Stripped                 | Matrix (S6)             |             | Red Parent M                         | laterial (F21              | ) (MLRA 12  | 7, 147)                |   | sturbed or problematic.          |  |  |
| Postrictivo I            | Layer (if observed):    |             |                                      |                            |             |                        |   |                                  |  |  |
| Type:                    | Layer (il observeu).    |             |                                      |                            |             |                        |   |                                  |  |  |
| Depth (inc               | ches).                  |             |                                      |                            |             |                        | Hydric Soil Present?  | Yes 🔍 No 🔾                       |  |  |
| Remarks:                 |                         |             |                                      |                            |             |                        |   |                                  |  |  |
| Remarks:                 |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
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|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
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|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
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|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
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|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
|                          |                         |             |                                      |                            |             |                        |   |                                  |  |  |
| 1                        |                         |             |                                      |                            |             |                        |   |                                  |  |  |

| Project/Site: Telesto Solar Project                            | City/County:               | Cecilia/Hardin      | Sampling Date: 23-Feb-21  |                          |  |
|--|----------------------------|---------------------|---|--------------------------|--|
| Applicant/Owner: 7x Energy                                     |                            | State: KY           | Sampling Poi  | nt: D-017                |  |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow               | nship, Range: S     | т   | R                        |  |
| Landform (hillslope, terrace, etc.):                           | Local relief (co           | ncave, convex, none | ):  | Slope: $0.0\%$ / $0.0$ ° |  |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68662                   | Long.:              | -85.96165   | Datum: WGS 1984          |  |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |                            |                     | NWI classification:   | N/A                      |  |
|  | ear? Yes<br>Ily disturbed? | Are "Normal Circ    | llain in Remarks.)<br>:umstances" present?<br>ain any answers in Re |                          |  |
| Summary of Findings - Attach site man showing s                | ampling po                 | int locations       | transects imno  | ortant features etc      |  |

| Summary or Findings - Attach site map showing sampli | ing point locations, transects, important reatures, etc. |
|--|--|
| $\sim$ $\sim$ $\sim$ $\sim$                          |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | $_{\rm Yes}$ $\bigcirc$ | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required) |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)                                  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)                                       | Moss Trim Lines (B16)                          |
| Water Marks (B1)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   | FAC-neutral Test (D5)                          |
| Field Observations:   |  |
| Surface Water Present? Yes O No O Depth (inches):   |  |
| Water Table Present? Yes O No O Depth (inches):   | Irology Present? Yes 🔿 No 🖲                    |
| Saturation Present? (includes capillary fringe) Yes O No O Depth (inches):                          | Irology Present? Yes 🔾 No 🖲                    |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava | ilable:  |
|   |  |
| Remarks:  |  |
| none.   |  |
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|   |          | Dominant<br>– Species? – |                     | Sampling Point: <b>D-017</b>   |
|---|----------|--------------------------|---------------------|--|
|   | Absolute | Rel.Strat.               | Indicator<br>Status | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                 | % Cover  | Cover                    | Status              | Number of Dominant Species   |
| 1   | 0        | 0.0%                     |                     | That are OBL, FACW, or FAC: (A)  |
| 2   |          | 0.0%                     |                     | Total Number of Dominant   |
| 3   |          | 0.0%                     |                     | Species Across All Strata: (B)   |
| 4   |          | 0.0%                     | ·                   | Dereent of dominant Species  |
| 5   |          | 0.0%                     |                     | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)                                      |
| 6   |          | 0.0%                     |                     |  |
| 7   |          | 0.0%                     |                     | Prevalence Index worksheet:  |
| 8   |          | 0.0%                     |                     | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | ) =      | = Total Cover            |                     | OBL species $0 \times 1 = 0$   |
| 1.  |          | 0.0%                     |                     | FACW species $0 \times 2 = 0$  |
| 2.  |          | 0.0%                     |                     | <b>FAC species</b> $20 \times 3 = 60$  |
| 3.  |          | 0.0%                     |                     | FACU species <b>x</b> $4 =240$   |
| 4.  |          | 0.0%                     |                     | UPL species x 5 =  |
| 5   |          | 0.0%                     |                     | Column Totals: <u>80</u> (A) <u>300</u> (B)  |
| 6.  | _        | 0.0%                     |                     | Prevalence Index = B/A = 3.750   |
| 7   |          | 0.0%                     |                     |  |
| 8   | _        | 0.0%                     |                     | Hydrophytic Vegetation Indicators:   |
| 9.  |          | 0.0%                     |                     | Rapid Test for Hydrophytic Vegetation  |
| 10.   |          | 0.0%                     |                     | Dominance Test is > 50%  |
|   |          | = Total Cover            |                     | □ Prevalence Index is $\leq 3.0^{-1}$  |
| Shrub Stratum (Plot size:)                                |          | 0.0%                     |                     | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                 |
| 1   |          | 0.0%                     |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2   |          |                          |                     |  |
| 3   |          | 0.0%                     |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |
| 4   |          | 0.0%                     |                     | Definition of Vegetation Strata:   |
| 5   |          | 0.0%                     |                     | Four Vegetation Strata:  |
| 6   |          | 0.0%                     |                     | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| 7   | 0        | 0.0%                     |                     | (7.6 cm) or more in diameter at breast height (DBH),   |
| Herb Stratum (Plot size:)                                 | =        | = Total Cover            |                     | regardless of height.<br>Sapling/shrub stratum – Consists of woody plants, excluding                               |
| 1. Echinochioa crusgalli                                  | 30       | ✓ 37.5%                  | FACU                | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2. Xanthium strumarium                                    | 20       | ✓ 25.0%                  | FAC                 | Herb stratum - Consists of all herbaceous (non-woody) plants,  |
| 3. Sorghum halepense                                      | 30       | ✓ 37.5%                  | FACU                | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4   | 0        | 0.0%                     |                     | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.                                       |
| 5   | 0        | 0.0%                     |                     |  |
| 6   | 0        | 0.0%                     |                     | Five Vegetation Strata:  |
| 7   | 0        | 0.0%                     |                     | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8   | 0        | 0.0%                     |                     | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9   | 0        | 0.0%                     |                     | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                    |
| 10  | 0        | 0.0%                     |                     | vines, approximately 20 ft (6 m) or more in height and less  |
| 11  | 0        | 0.0%                     |                     | than 3 in. (7.6 cm) DBH.   |
| 12  | 0        | 0.0%                     |                     | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height. |
| _Woody Vine Stratum_(Plot size:)                          | 80 =     | = Total Cover            |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1   | 0        | 0.0%                     |                     | including herbaceous vines, regardless of size, and woody  |
| 2   | 0        | 0.0%                     |                     | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 3   |          | 0.0%                     |                     | Woody vines – Consists of all woody vines, regardless of   |
| 4   | -        | 0.0%                     |                     | height.  |
| 5   |          | 0.0%                     |                     |  |
| 6   |          | 0.0%                     |                     | Hydrophytic<br>Vegetation  |
| 0   |          | = Total Cove             | r                   | Present? Yes O No O  |
| Remarks: (Include photo numbers here or on a separate she |          |                          |                     |  |

| Profile Desc             | ription: (Describe to                        | the depth n | eeded to document                    | the indica   | ator or co        | nfirm the a           | absence of indicators.)   |                                    |  |  |
|--------------------------|--|-------------|--------------------------------------|--------------|-------------------|-----------------------|---|------------------------------------|--|--|
| Depth                    | Matrix                                       |             | Re                                   | dox Featu    |                   |                       |   |                                    |  |  |
| (inches)                 | Color (moist)                                | _%          | Color (moist)                        | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture   | Remarks                            |  |  |
| 0-21                     | 10YR 3/3                                     | 100         |                                      |              |                   |                       | Loam  |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
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| -                        |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          | <u>.                                    </u> |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
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|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletic                      | n. RM=Redu  | ced Matrix, CS=Cover                 | ed or Coate  | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M   | atrix                              |  |  |
| Hydric Soil              | Indicators:                                  |             |                                      |              |                   |                       | Indicators for Proble   | ematic Hydric Soils <sup>3</sup> : |  |  |
| Histosol (               | (A1)   |             | Dark Surface (                       | S7)          |                   |                       | 2 cm Muck (A10)   |                                    |  |  |
| Histic Epi               | ipedon (A2)                                  |             | Polyvalue Belo                       | w Surface (  | S8) (MLRA         | 147,148)              |   |                                    |  |  |
| Black His                | tic (A3)                                     |             | Thin Dark Surf                       | ace (S9) (M  | LRA 147, 1        | 48)                   | Coast Prairie Redo<br>(MLRA 147,148)  | ox (A16)                           |  |  |
| Hydroger                 | n Sulfide (A4)                               |             | Loamy Gleyed                         | Matrix (F2)  |                   |                       | Piedmont Floodpl  | ain Soils (F19)                    |  |  |
| Stratified               | Layers (A5)                                  |             | Depleted Matri                       | x (F3)       |                   |                       | (MLRA 136, 147)   |                                    |  |  |
| 2 cm Muc                 | ck (A10) (LRR N)                             |             | Redox Dark Surface (F6)              |              |                   |                       | Very Shallow Darl   | < Surface (TF12)                   |  |  |
| Depleted                 | Below Dark Surface (A                        | .11)        | Depleted Dark Surface (F7)           |              |                   |                       | Other (Explain in Remarks)  |                                    |  |  |
| Thick Dar                | rk Surface (A12)                             |             | Redox Depressions (F8)               |              |                   |                       |   | Kennarksy                          |  |  |
| Sandy Mu                 | uck Mineral (S1) (LRR N                      | ۹.          | Iron-Manganes                        | e Masses (I  | F12) (LRR         | N,                    |   |                                    |  |  |
| MLRA 14                  |  |             | MLRA 136)                            |              |                   |                       |   |                                    |  |  |
| Sandy Gl                 | eyed Matrix (S4)                             |             | Umbric Surface (F13) (MLRA 136, 122) |              |                   |                       | 3   |                                    |  |  |
| Sandy Re                 | edox (S5)                                    |             | Piedmont Floo                        | dplain Soils | (F19) (MLI        | RA 148)               | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present, |                                    |  |  |
| Stripped                 | Matrix (S6)                                  |             | Red Parent Ma                        | terial (F21) | (MLRA 12          | 7, 147)               |   | sturbed or problematic.            |  |  |
| Postrictivo I            | ayer (if observed):                          |             |                                      |              |                   |                       |   |                                    |  |  |
| Type:                    | ayer (il observeu).                          |             |                                      |              |                   |                       |   |                                    |  |  |
| •••••                    | ches):                                       |             |                                      |              |                   |                       | Hydric Soil Present?  | Yes 🔿 No 🖲                         |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
| Remarks:                 |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
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|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
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|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |
|                          |  |             |                                      |              |                   |                       |   |                                    |  |  |

| Project/Site: Telesto Solar Project                            | City/County:                                 | Cecilia/Hardin       | Sampli  | ng Date: 23-Feb-21       |
|--|--|----------------------|---|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling Poir   | nt: D-018                |
| Investigator(s): J. Stelly and C. Hoffman                      | Section, Tow                                 | nship, Range: S      | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                             | ncave, convex, none) | flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68721                                     | Long.:               | -85.96154   | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classification:   | N/A                      |
|  | ear? Yes •<br>tly disturbed?<br>problematic? | Are "Normal Circ     | ain in Remarks.)<br>umstances" present?<br>in any answers in Re |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |  |
|---------------------------------|-------|------|---------------------|------------|--|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No 🔿 |  |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |            |  |
| Remarks:                        |       |      |                     |            |  |
| Wet-8                           |       |      |                     |            |  |
|                                 |       |      |                     |            |  |
|                                 |       |      |                     |            |  |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required)                          |
|---|---|
| Primary Indicators (minimum of one required; check all that apply)                                  | Surface Soil Cracks (B6)  |
| Surface Water (A1) True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)                                 |
| ✓ High Water Table (A2)   | Drainage Patterns (B10)   |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)                                       | Moss Trim Lines (B16)   |
| Water Marks (B1)  | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)                               |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  | Geomorphic Position (D2)  |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   | FAC-neutral Test (D5)   |
| Field Observations:   |   |
| Surface Water Present? Yes O No O Depth (inches):   |   |
| Water Table Present? Yes  No Depth (inches): 4  | rology Present? Yes 💿 No 🔾  |
| Saturation Present? Yes I No Depth (inches): 0  | rology Present? Yes $oldsymbol{igodol}$ No $igodoldsymbol{igodoldelta}$ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava | lable:  |
|   |   |
| Remarks:  |   |
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|   |          | Dominant                   |           | Sampling Point: <b>D-018</b>   |
|---|----------|----------------------------|-----------|--|
|   | Absolute | - Species? -<br>Rel.Strat. | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                 | % Cover  | Cover                      | Status    | Number of Dominant Species   |
| 1   |          | 0.0%                       |           | That are OBL, FACW, or FAC:(A)   |
| 2   |          | 0.0%                       |           |  |
| 3   |          | 0.0%                       |           | Total Number of Dominant<br>Species Across All Strata: 2 (B)   |
| 4   | -        | 0.0%                       |           |  |
| 5   | -        | 0.0%                       |           | Percent of dominant Species  |
| 6   | _        | 0.0%                       |           | That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |
| 7.  |          | 0.0%                       |           | Prevalence Index worksheet:  |
| 8   |          | 0.0%                       |           | Total % Cover of: Multiply by:   |
|   | 0        | = Total Cover              |           | 0BL species x 1 =0   |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | )        | _                          |           | FACW species $45$ x 2 = $90$   |
| 1   | 0        | 0.0%                       |           |  |
| 2   | 0        | 0.0%                       |           |  |
| 3   | 0        | 0.0%                       |           | FACU species $0 \times 4 = 0$  |
| 4   | 0        | 0.0%                       |           | UPL species $0 \times 5 = 0$   |
| 5   | 0        | 0.0%                       |           | Column Totals: <u>85</u> (A) <u>210</u> (B)  |
| 6   |          | 0.0%                       |           | Prevalence Index = B/A = 2.471   |
| 7.  | 0        | 0.0%                       |           |  |
| 8.  |          | 0.0%                       |           | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation  |
| 9   |          | 0.0%                       |           |  |
| 10  |          | 0.0%                       |           | ✓ Dominance Test is > 50%  |
|   |          | = Total Cover              |           | ✓ Prevalence Index is $\leq 3.0^{1}$   |
| Shrub Stratum (Plot size:)                                |          |                            |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 1. Acer rubrum  | 40       | 47.1%                      | FAC       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2. Celtis laevigata                                       | 30       | ✓ 35.3%                    | FACW      |  |
| 3. Ulmus americana  |          | 17.6%                      | FACW      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.              |
| 4   | 0        | 0.0%                       |           |  |
| 5   | 0        | 0.0%                       |           | Definition of Vegetation Strata:   |
| 6   | 0        | 0.0%                       |           | Four Vegetation Strata:  |
| 7   | 0        | 0.0%                       |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |
| Herb Stratum_ (Plot size:)                                | 85 =     | = Total Cover              |           | regardless of height.  |
| 1   |          | 0.0%                       |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2   | 0        | 0.0%                       |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3   | 0        | 0.0%                       |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4   | 0        | 0.0%                       |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5   | 0        | 0.0%                       |           | in height.   |
| 6   |          | 0.0%                       |           |  |
| 7   |          | 0.0%                       |           | Five Vegetation Strata:  |
| 8   |          | 0.0%                       |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |
|   | 0        | 0.0%                       |           | diameter at breast height (DBH).   |
| 9   | 0        | 0.0%                       |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10  |          |                            |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11  |          | 0.0%                       |           | Shrub stratum – Consists of woody plants, excluding woody  |
| 12  | 0        |                            |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size: )                          |          | = Total Cover              |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1   | 0        | 0.0%                       |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1      |
| 2   | 0        | 0.0%                       |           | m) in height.  |
| 3   |          | 0.0%                       |           | Woody vines – Consists of all woody vines, regardless of   |
| 4   | -        | 0.0%                       |           | height.  |
| 5   | _        | 0.0%                       |           | lludee why die   |
| 6   | 0        | 0.0%                       |           | Hydrophytic<br>Vegetation  |
|   | 0        | = Total Cover              |           | Present? Yes No  |
| Remarks: (Include photo numbers here or on a separate she |          |                            |           |  |

|                   | Matrix   | aopun      |  | edox Featu     |                          |                       | bsence of indicators.)  |                                    |  |
|-------------------|--|------------|--|----------------|--------------------------|-----------------------|---|------------------------------------|--|
| Depth<br>(inches) | Color (moist)                                  | %          | Color (moist)  | edox Featu     | <u>Tvpe</u> <sup>1</sup> | Loc <sup>2</sup>      | Texture   | Remarks                            |  |
| 0-21              | 10YR 3/1                                       | 80         | 5YR 4/6  | 20             | C                        | M                     | Loam  | Kemarks                            |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            | ······   |                | ·                        |                       |   | · •                                |  |
|                   | . <u> </u>                                     |            |  |                | · ·                      |                       |   | - y                                |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   | ·  |            |  |                |                          |                       | -   |                                    |  |
|                   |  |            |  |                |                          |                       |   | 1                                  |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
| 0.0               |  |            |  |                |                          | 21                    |   |                                    |  |
| -                 |  | n. RM=Redu | ced Matrix, CS=Cove                                  | red or Coate   | d Sand Grai              | ns <sup>2</sup> Locat | tion: PL=Pore Lining. M=M   | latrix                             |  |
| ydric Soil I      |  |            |  | ()             |                          |                       | Indicators for Proble   | ematic Hydric Soils <sup>3</sup> : |  |
| Histosol (/       |  |            | Dark Surface   |                |                          | 47.440                | 2 cm Muck (A10)   | (MLRA 147)                         |  |
| _                 | bedon (A2)                                     |            | Polyvalue Bel  |                |                          |                       | Coast Prairie Red   | ox (A16)                           |  |
| Black Hist        | IC (A3)<br>Sulfide (A4)                        |            | Thin Dark Sur  |                | LRA 147, 14              | 8)                    | (MLRA 147,148)  |                                    |  |
|                   | Layers (A5)                                    |            | Loamy Gleyed   |                |                          |                       | Piedmont Floodpl  |                                    |  |
| -                 | k (A10) (LRR N)                                |            | Depleted Mat   |                |                          |                       | (MLRA 136, 147)   |                                    |  |
| -                 |  |            |  |                | n                        |                       | Very Shallow Dark Surface (TF12)  |                                    |  |
|                   | Below Dark Surface (A1                         | 1)         | Depleted Dark Surface (F7)<br>Redox Depressions (F8) |                |                          |                       | Other (Explain in   | Remarks)                           |  |
| _                 | k Surface (A12)                                |            | Iron-Mangane   |                | F12) (I RR N             |                       |   |                                    |  |
| MLRA 147          | ick Mineral (S1) (LRR N<br>7, 148)             | ,          | MLRA 136)  | 550 Ma5505 (   |                          | ,                     |   |                                    |  |
| -                 | eyed Matrix (S4)                               |            | Umbric Surfa   | ce (F13) (ML   | RA 136, 122              | !)                    | 2   |                                    |  |
| Sandy Red         |  |            | Piedmont Flo   | odplain Soils  | (F19) (MLR               | A 148)                | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present, |                                    |  |
| Stripped N        | Matrix (S6)                                    |            | Red Parent M   | laterial (F21) | (MLRA 127                | 147)                  |   | sturbed or problematic.            |  |
|                   | <i>(</i> , , , , , , , , , , , , , , , , , , , |            |  |                |                          |                       |   |                                    |  |
|                   | ayer (if observed):                            |            |  |                |                          |                       |   |                                    |  |
| Туре:             |  |            |  |                |                          |                       | Hydric Soil Present?  | Yes 💿 No 🔾                         |  |
| Depth (incl       | hes):  |            |  |                |                          |                       |   |                                    |  |
| emarks:           |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |
|                   |  |            |  |                |                          |                       |   |                                    |  |

| Project/Site: Telesto Solar Project                            | City/County:                               | Cecilia/Hardin      | Sampli   | ing Date: 23-Feb-21      |
|--|--|---------------------|--|--------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY           | Sampling Poi   | nt: D-019                |
| Investigator(s):   | Section, Town                              | nship, Range: S     | тт   | R                        |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (co                           | ncave, convex, none | ): flat  | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68806                                   | Long.:              | -85.96136  | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                     | NWI classification:  | N/A                      |
|  | ear? Yes •<br>ly disturbed?<br>roblematic? | Are "Normal Circ    | lain in Remarks.)<br>sumstances" present?<br>ain any answers in Re |                          |
| Summary of Findings - Attach site map showing s                | ampling po                                 | int locations, t    | transects, impo  | ortant features, etc.    |

| Hydrophytic Vegetation Present? | $_{ m Yes}$ $\bigcirc$  | No 🖲 |                     |                              |
|---------------------------------|-------------------------|------|---------------------|------------------------------|
| Hydric Soil Present?            | $Yes \bigcirc$          | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\bigcirc$ |
| Wetland Hydrology Present?      | $_{\rm Yes}$ $\bigcirc$ | Νο 🖲 | within a Wetland?   |                              |
| Remarks:                        |                         |      |                     |                              |
|                                 |                         |      |                     |                              |
|                                 |                         |      |                     |                              |
|                                 |                         |      |                     |                              |

# Hydrology

| Wetland Hydrology Indicat                                 | ors:                   |           |  | Secondary Indicators (minimum of two required) |
|---|------------------------|-----------|--|--|
| Primary Indicators (minim                                 | um of one              | required; | check all that apply)                                  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                        |           | True Aquatic Plants (B14)                              | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                        |           | Hydrogen Sulfide Odor (C1)                             | Drainage Patterns (B10)                        |
| Saturation (A3)   |                        |           | Oxidized Rhizospheres along Living Roots (C3)          | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                        |           | Presence of Reduced Iron (C4)                          | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                        |           | Recent Iron Reduction in Tilled Soils (C6)             | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                       |                        |           | Thin Muck Surface (C7)                                 | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                        |           | Other (Explain in Remarks)                             | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                        |           |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | al Imagery (           | (B7)      |  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                 | )                      |           |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                        |           |  | FAC-neutral Test (D5)                          |
| Field Observations:                                       | 0                      | 0         |  |  |
| Surface Water Present?                                    | $Yes  \bigcirc $       | No 🖲      | Depth (inches):  |  |
| Water Table Present?                                      | $_{ m Yes}$ $\bigcirc$ | No 🖲      | Depth (inches):  | Hydrology Present? Yes 🔿 No 🖲                  |
| Saturation Present?                                       | $_{ m Yes}$ $\bigcirc$ | No 🖲      | Wetland I<br>Depth (inches):                           | Hydrology Present? Yes 🔾 No 🔍                  |
| (includes capillary fringe)                               | Yes $\bigcirc$         | 110 0     |  |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |           | pring well, aerial photos, previous inspections), if a | available:                                     |
|   |                        |           |  | available:                                     |
| Describe Recorded Data (st                                |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st                                |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |
| Describe Recorded Data (st<br>Remarks:                    |                        |           |  | available:                                     |

|  | Dominant<br>Species? |               |           | Sampling Point: <b>D-019</b>   |  |
|--|----------------------|---------------|-----------|--|--|
|  | Absolute             | Rel.Strat.    | Indicator | Dominance Test worksheet:  |  |
| Tree Stratum (Plot size:)                                  | % Cover              | Cover         | Status    | Number of Dominant Species   |  |
| 1. Acer nigrum   | 75                   | ✓ 78.9%       | FACU      | That are OBL, FACW, or FAC: (A)  |  |
| 2. Celtis occidentalis                                     | 15                   | 15.8%         | FACU      | Total Number of Dominant   |  |
| 3. Ulmus americana   |                      | 5.3%          | FACW      | Species Across All Strata:(B)  |  |
| 4  |                      | 0.0%          |           | Percent of dominant Species  |  |
| 5  |                      | 0.0%          |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)  |  |
| 6  |                      | 0.0%          |           |  |  |
| 7  | _                    | 0.0%          |           | Prevalence Index worksheet:<br>Total % Cover of: Multiply by:  |  |
| 8  |                      | 0.0%          |           |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95 =                 |               |           | <b>OBL</b> species $0 \times 1 = 0$  |  |
| 1  | 0                    | 0.0%          |           | FACW species $5 \times 2 = 10$   |  |
| 2  | 0                    | 0.0%          |           | FAC species $0 \times 3 = 0$   |  |
| 3  | 0                    | 0.0%          |           | FACU species $90 \times 4 = 360$   |  |
| 4  | 0                    | 0.0%          |           | UPL species $0 \times 5 = 0$   |  |
| 5  | 0                    | 0.0%          |           | Column Totals: (A) (B)   |  |
| 6  | 0                    | 0.0%          |           | Prevalence Index = B/A =3.895  |  |
| 7  | 0                    | 0.0%          |           | Hydrophytic Vegetation Indicators:   |  |
| 8  | 0                    | 0.0%          |           | Rapid Test for Hydrophytic Vegetation  |  |
| 9  | 0                    | 0.0%          |           | Dominance Test is > 50%  |  |
| 10   | 0                    | 0.0%          |           | $\square$ Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| Shrub Stratum (Plot size:)                                 | :                    | = Total Cover |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |
| <u> </u>   |                      | 0.0%          |           | data in Remarks or on a separate sheet)  |  |
| 2  |                      | 0.0%          |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 3  |                      | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |
| 4  |                      | 0.0%          |           | be present, unless disturbed or problematic.   |  |
| 5  | 0                    | 0.0%          |           | Definition of Vegetation Strata:   |  |
| 6  |                      | 0.0%          |           | Four Vegetation Strata:  |  |
| 7  | 0                    | 0.0%          |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |  |
| Herb Stratum (Plot size:)                                  | 0                    | = Total Cover |           | regardless of height.  |  |
| 1  |                      | 0.0%          |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |
| 2.   | 0                    | 0.0%          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |
| 3.   | 0                    | 0.0%          |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |
| 4  | 0                    | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |
| 5  | 0                    | 0.0%          |           | in height.   |  |
| 6  | 0                    | 0.0%          |           | Five Vegetation Strata:  |  |
| 7  | 0                    | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |
| 8  | 0                    | 0.0%          |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |
| 9  | 0                    | 0.0%          |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                                |  |
| 10   | 0                    | 0.0%          |           | vines, approximately 20 ft (6 m) or more in height and less  |  |
| 11   | 0                    | 0.0%          |           | than 3 in. (7.6 cm) DBH.   |  |
| 12   |                      | 0.0%          |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |
| Woody Vine Stratum_(Plot size:)                            | :                    | = Total Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |
| 1  | 0                    | 0.0%          |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1      |  |
| 2  | 0                    | 0.0%          |           | m) in height.  |  |
| 3  |                      | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of   |  |
| 4  | _                    | 0.0%          |           | height.  |  |
| 5  | 0                    | 0.0%          |           |  |  |
| 6  | 0                    | 0.0%          |           | Hydrophytic<br>Vegetation  |  |
|  | 0                    | = Total Cove  | r         | Present? Yes Vo 🔍  |  |
| Remarks: (Include photo numbers here or on a separate shee |                      |               |           |  |  |

| epth                | Matrix                             |           | Ree                        | dox Featu   |                   |                       |                                      |   |
|---------------------|------------------------------------|-----------|----------------------------|-------------|-------------------|-----------------------|--------------------------------------|---|
| ches)               | Color (moist)                      | %         | Color (moist)              | %           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture                              | Remarks   |
| -21                 | 10YR 3/3                           | 100       | ·                          |             |                   |                       | Loam                                 |   |
|                     | · ·                                |           | ·                          |             |                   |                       |                                      |   |
|                     |                                    |           | ·                          |             |                   |                       | ,,                                   |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       | ,                                    |   |
|                     |                                    |           | ·                          |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
| : C=Con             | centration. D=Depletic             | n. RM=Red | uced Matrix, CS=Covere     | ed or Coate | d Sand Gra        | ns <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma           | atrix   |
|                     | ndicators:                         |           |                            |             |                   |                       | Indicators for Proble                |   |
| istosol (A          | A1)                                |           | Dark Surface (             | S7)         |                   |                       | 2 cm Muck (A10)                      |   |
|                     | pedon (A2)                         |           | Polyvalue Belov            |             |                   |                       | Coast Prairie Redo                   |   |
| lack Hist           | ic (A3)<br>I Sulfide (A4)          |           | Thin Dark Surfa            |             | LRA 147, 1        | 48)                   | (MLRA 147,148)                       | , ((10)   |
|                     | Layers (A5)                        |           | Loamy Gleyed               |             |                   |                       | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)                                   |
|                     | k (A10) (LRR N)                    |           | Redox Dark Su              |             |                   |                       | Very Shallow Dark                    | Surface (TE12)                                    |
| epleted             | Below Dark Surface (A              | .11)      | Depleted Dark              | Surface (FI | 7)                |                       | Other (Explain in                    |   |
| hick Dar            | k Surface (A12)                    |           | Redox Depress              |             |                   |                       |                                      |   |
| andy Mu<br>ILRA 147 | ick Mineral (S1) (LRR N<br>7, 148) | Ν,        | Iron-Manganes<br>MLRA 136) |             |                   |                       |                                      |   |
|                     | eyed Matrix (S4)                   |           |                            |             |                   |                       | <sup>3</sup> Indicators of I         | nydrophytic vegetation and                        |
| Sandy Re            | dox (S5)<br>Vatrix (S6)            |           | Piedmont Floor             |             |                   |                       | wetland hyd                          | rology must be present,<br>turbed or problematic. |
| Stripped i          |                                    |           | Red Parent Ma              | lenai (F21) | (IVILKA 127       | , 147)                |                                      |   |
|                     | ayer (if observed):                |           |                            |             |                   |                       |                                      |   |
| ype:                | has);                              |           |                            |             |                   |                       | Hydric Soil Present?                 | Yes 🔿 No 🖲  |
|                     | hes):                              |           |                            |             |                   |                       | -                                    |   |
| narks:              |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |
|                     |                                    |           |                            |             |                   |                       |                                      |   |

| Project/Site: Telesto Solar Project                            | City/County:                               | Cecilia/Hardin       | Sam  | pling Date: 23-Feb-21  |
|--|--|----------------------|--|------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling F   | Point: D-020           |
| Investigator(s):   | Section, Towr                              | nship, Range: S      | т  | R                      |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (cor                          | ncave, convex, none) | : flat   | Slope:0.0%/0.0 °       |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.68889                                   | Long.:               | -85.96095  | Datum: WGS 1984        |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classificatio  | on: N/A                |
|  | ear? Yes •<br>ly disturbed?<br>roblematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" preser<br>iin any answers in |                        |
| Summary of Findings - Attach site map showing sa               | ampling po                                 | int locations, t     | ransects, im   | portant features, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

| Wetland Hydrology Indicators:             |   | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one requir | ed; check all that apply)                                   | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                        | True Aquatic Plants (B14)                                   | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                     | Hydrogen Sulfide Odor (C1)                                  | Drainage Patterns (B10)                        |
| Saturation (A3)                           | Oxidized Rhizospheres along Living Roots (C3)               | Moss Trim Lines (B16)                          |
| Water Marks (B1)                          | Presence of Reduced Iron (C4)                               | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                    | Recent Iron Reduction in Tilled Soils (C6)                  | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                       | Thin Muck Surface (C7)                                      | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                   | Other (Explain in Remarks)                                  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                        |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7) |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                 |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                       |   | FAC-neutral Test (D5)                          |
| Field Observations:                       |   |  |
| Surface Water Present? Yes O No           | • • • •   |  |
| Water Table Present? Yes O No             |   | ydrology Present? Yes 🔿 No 🖲                   |
| Saturation Present? Yes O No              | Depth (inches):   | ydrology Present? Yes 🔾 No 🖲                   |
| Describe Recorded Data (stream gauge, mo  | pnitoring well, aerial photos, previous inspections), if av | /ailable:                                      |
|   |   |  |
| Remarks:                                  |   |  |
| No hydro characteristics.                 |   |  |
|   |   |  |
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|   |   |  |
|   |   |  |

|  | Dominant<br>Species? |              |           | Sampling Point: D-020   |  |  |
|--|----------------------|--------------|-----------|---|--|--|
|  | Absolute             | Rel.Strat.   | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |              | Status    | Number of Dominant Species  |  |  |
| 1. Acer nigrum   | 75                   | 78.9%        | FACU      | That are OBL, FACW, or FAC: (A)   |  |  |
| 2. Celtis occidentalis                                     | 15                   | 15.8%        | FACU      | Total Number of Dominant  |  |  |
| 3. Ulmus americana   |                      | 5.3%         | FACW      | Species Across All Strata: (B)  |  |  |
| 4  |                      |              | - <u></u> | Percent of dominant Species   |  |  |
| 5  |                      | 0.0%         |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)   |  |  |
| 6  |                      |              |           |   |  |  |
| 7  |                      | 0.0%         |           | Prevalence Index worksheet:<br>Total % Cover of: Multiply by:   |  |  |
| 8  |                      | 0.0%         |           |   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95                   |              |           | OBL species $0 \times 1 = 0$  |  |  |
| 1  | 0                    | 0.0%         |           | FACW species $5 \times 2 = 10$  |  |  |
| 2  | 0                    | 0.0%         |           | FAC species $0 \times 3 = 0$  |  |  |
| 3  | 0                    | 0.0%         |           | FACU species $90 \times 4 = 360$  |  |  |
| 4  | 0                    | 0.0%         |           | UPL species $0 \times 5 = 0$  |  |  |
| 5  | 0                    | 0.0%         |           | Column Totals: (A) (B)  |  |  |
| 6  | 0                    | 0.0%         |           | Prevalence Index = $B/A = 3.895$  |  |  |
| 7  | 0                    | 0.0%         |           | Hydrophytic Vegetation Indicators:  |  |  |
| 8  | 0                    | 0.0%         |           | Rapid Test for Hydrophytic Vegetation   |  |  |
| 9  | 0                    | 0.0%         |           | Dominance Test is > 50%   |  |  |
| 10   | 0                    | 0.0%         |           | Prevalence Index is ≤3.0 <sup>1</sup>   |  |  |
| Shrub Stratum (Plot size:)                                 | 0                    | = Total Cove | -         | Morphological Adaptations <sup>1</sup> (Provide supporting  |  |  |
| 1  |                      | 0.0%         |           | data in Remarks or on a separate sheet)   |  |  |
| 2  |                      | 0.0%         |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3  |                      | 0.0%         |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4  | 0                    | 0.0%         |           | be present, unless disturbed or problematic.  |  |  |
| 5  | 0                    | 0.0%         |           | Definition of Vegetation Strata:  |  |  |
| 6  | 0                    | 0.0%         |           | Four Vegetation Strata:   |  |  |
| 7  | 0                    | 0.0%         |           | Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),        |  |  |
| Herb Stratum (Plot size:)                                  | 0                    | = Total Cove | -         | regardless of height.   |  |  |
| 1  |                      | 0.0%         |           | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2.   | 0                    | 0.0%         |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 3  | 0                    | 0.0%         |           | regardless of size, and all other plants less than 3.28 ft tall.  |  |  |
| 4  | 0                    | 0.0%         |           | Woody vines – Consists of all woody vines greater than 3.28 ft in height.   |  |  |
| 5  | 0                    | 0.0%         |           | in neight.  |  |  |
| 6  | 0                    | 0.0%         |           | Five Vegetation Strata:   |  |  |
| 7  | 0                    | 0.0%         |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  | 0                    | 0.0%         |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in  |  |  |
| 9  | 0                    | 0.0%         |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                             |  |  |
| 10   | 0                    | 0.0%         |           | vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   | 0                    | 0.0%         |           | than 3 in. (7.6 cm) DBH.  |  |  |
| 12   |                      | 0.0%         |           | Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |
| Woody Vine Stratum (Plot size:)                            | 0                    | = Total Cove | •         | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0                    | 0.0%         |           | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1      |  |  |
| 2  | 0                    | 0.0%         |           | m) in height.   |  |  |
| 3  |                      | 0.0%         |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  | -                    | 0.0%         |           | height.   |  |  |
| 5  | 0                    | 0.0%         |           | Hydrophytic   |  |  |
| 6  | 0                    | 0.0%         |           | Hydrophytic<br>Vegetation   |  |  |
|  | 0                    | = Total Cove | r         | Present? Yes No 💿   |  |  |
| Remarks: (Include photo numbers here or on a separate shee |                      |              |           | 1   |  |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

| epth                   | Matrix                           | (            | Ree                    | dox Featu    |                   |                        |  |                                    |
|------------------------|----------------------------------|--------------|------------------------|--------------|-------------------|------------------------|--|------------------------------------|
| ches)                  | Color (moist)                    | %            | Color (moist)          | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture  | Remarks                            |
| -21                    | 10YR 3/3                         | 100          |                        |              |                   |                        | Loam   |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        | 8                                |              | ·                      |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        | u                                |              | · ·                    |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
| : C=Con                | centration. D=Deplet             | tion. RM=Red | uced Matrix, CS=Covere | ed or Coate  | ed Sand Gra       | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=M  | atrix                              |
| ic Soil I              | ndicators:                       |              | _                      |              |                   |                        | Indicators for Proble  | ematic Hydric Soils <sup>3</sup> : |
| istosol (              |                                  |              | Dark Surface (         |              |                   |                        | 2 cm Muck (A10)  |                                    |
|                        | pedon (A2)                       |              | Polyvalue Belov        |              |                   |                        | Coast Prairie Red  |                                    |
| lack Hist              |                                  |              | Thin Dark Surfa        |              |                   | 48)                    | (MLRA 147,148)   | 5x (110)                           |
|                        | Sulfide (A4)                     |              | Loamy Gleyed           |              |                   |                        | Piedmont Floodpl   | ain Soils (F19)                    |
|                        | Layers (A5)                      |              | Depleted Matrix        |              |                   |                        | (MLRA 136, 147)  |                                    |
|                        | k (A10) (LRR N)                  | (            | Redox Dark Su          |              | 7)                |                        | Very Shallow Dar   |                                    |
|                        | Below Dark Surface               | (A11)        | Redox Depress          |              | /)                |                        | Other (Explain in  | Remarks)                           |
|                        | k Surface (A12)                  |              | Iron-Manganes          |              | (I RR N           | d.                     |  |                                    |
| andy iviu<br>/ILRA 147 | ick Mineral (S1) (LRR<br>7, 148) | IN,          | MLRA 136)              | 0 1112303 (  | (12) (2000)       | •,                     |  |                                    |
| andy Gle               | eyed Matrix (S4)                 |              | Umbric Surface         | (F13) (ML    | RA 136, 12        | 2)                     | 2  |                                    |
| andy Re                |                                  |              | Piedmont Floor         | plain Soils  | (F19) (MLF        | A 148)                 | <sup>3</sup> Indicators of hydrophytic vegetation<br>wetland hydrology must be present |                                    |
| tripped N              | Matrix (S6)                      |              | Red Parent Ma          | terial (F21) | ) (MLRA 127       | r, 147)                | unless di  | sturbed or problematic.            |
| iativa I.              | over (if choom ad)               |              |                        |              |                   |                        |  |                                    |
| pe:                    | ayer (if observed)               | •            |                        |              |                   |                        |  |                                    |
|                        | hes):                            |              |                        |              |                   |                        | Hydric Soil Present?   | Yes 🔿 No 🖲                         |
|                        | nes).                            |              |                        |              |                   |                        |  |                                    |
| arks:                  |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |
|                        |                                  |              |                        |              |                   |                        |  |                                    |

| Project/Site: Telesto Solar Project  | City/County:                | Cecilia/Hardin      | Sampli                                    | ing Date: 23-Feb-21          |
|--|-----------------------------|---------------------|---|------------------------------|
| Applicant/Owner: 7x Energy   |                             | State: KY           | Sampling Poi                              | nt: D-021                    |
| Investigator(s): J. Stelly and C. Hoffman  | Section, Tow                | nship, Range: S     | т   | R                            |
| Landform (hillslope, terrace, etc.): Flat  | Local relief (co            | ncave, convex, none | ): flat                                   | Slope: $0.0\%$ / $0.0$ °     |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.68909                    | Long.:              | -85.96100                                 | Datum: WGS 1984              |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes.   |                             |                     | NWI classification:                       | N/A                          |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲<br>ly disturbed? |                     | lain in Remarks.)<br>:umstances" present? | , Yes $ullet$ No $ightarrow$ |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | problematic?                | (If needed, expl    | ain any answers in Re                     | emarks.)                     |
|  |                             |                     |   |                              |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |                           |  |
|---------------------------------|-------|------|---------------------|---------------------------|--|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes $\odot$ No $\bigcirc$ |  |
| Wetland Hydrology Present?      | Yes 🖲 | No 🔿 | within a Wetland?   |                           |  |
| Remarks:                        |       |      |                     |                           |  |
| Wet-9                           |       |      |                     |                           |  |
|                                 |       |      |                     |                           |  |
|                                 |       |      |                     |                           |  |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required)           |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)  | Surface Soil Cracks (B6)                                 |
| Surface Water (A1) True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)                  |
| ✓ High Water Table (A2)   | Drainage Patterns (B10)                                  |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)                                    |
| Water Marks (B1)  | Dry Season Water Table (C2)                              |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)                                    |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)                |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                          |
| Iron Deposits (B5)  | Geomorphic Position (D2)                                 |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)                                    |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                             |
| Aquatic Fauna (B13)   | ✓ FAC-neutral Test (D5)                                  |
| Field Observations:   |  |
| Surface Water Present? Yes O No O Depth (inches):   |  |
| Water Table Present? Yes  No Depth (inches): 3  |  |
|   |  |
| Saturation Present? Voc  Voc Voc Voc Voc Voc Voc Voc Voc Voc Voc  | lydrology Present? Yes $ullet$ No $igodoldsymbol{	imes}$ |
| Wotland H   | , ,,   |
| Saturation Present? Yes O No Depth (inches): 1  | , ,,   |
| Saturation Present? Yes O No Depth (inches): 1  | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       1       Wetland H         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a | , ,,   |

| ,,,  | Dominant |               |                     |           | Sampling Point: D-021   |  |  |
|--|----------|---------------|---------------------|-----------|---|--|--|
|  | Absolute | Rel           | ecies? -<br>.Strat. | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |               | /er                 | Status    | Number of Dominant Species  |  |  |
| 1. Acer rubrum   | 60       | ✓             | 66.7%               | FAC       | That are OBL, FACW, or FAC: (A)   |  |  |
| 2. Celtis laevigata  | 20       |               | 22.2%               | FACW      | Total Number of Dominant  |  |  |
| 3. Ulmus americana   |          |               | 11.1%               | FACW      | Species Across All Strata: <u>2</u> (B)   |  |  |
| 4  |          |               | 0.0%                |           | Dereent of dominant Species   |  |  |
| 5  |          |               | 0.0%                |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |  |  |
| 6  |          | <u> </u>      | 0.0%                |           |   |  |  |
| 7  |          |               | 0.0%                |           | Prevalence Index worksheet:   |  |  |
| 8  | 0        | <u> </u>      | 0.0%                |           | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = lot         | al Cover            |           | OBL species x 1 =   |  |  |
| 1  |          |               | 0.0%                |           | FACW species $30$ x 2 = $60$  |  |  |
| 2.   |          |               | 0.0%                |           | FAC species K 3 = 180   |  |  |
| 3  |          |               | 0.0%                |           | FACU species $0 \times 4 = 0$   |  |  |
| 4.   | •        |               | 0.0%                |           | UPL species x 5 =   |  |  |
| 5  |          |               | 0.0%                |           | Column Totals: <u>90</u> (A) <u>240</u> (B)   |  |  |
| 6  | _        |               | 0.0%                |           | Prevalence Index = $B/A = 2.667$  |  |  |
| 7  | -        |               | 0.0%                |           |   |  |  |
| 8  |          |               | 0.0%                |           | Hydrophytic Vegetation Indicators:<br>Rapid Test for Hydrophytic Vegetation   |  |  |
| 9  | _        |               | 0.0%                |           |   |  |  |
| 10   |          |               | 0.0%                |           |   |  |  |
|  |          | = Tot         | al Cover            |           | ✓ Prevalence Index is $\leq 3.0^{-1}$   |  |  |
| Shrub Stratum (Plot size:)                                 |          |               | 0.0%                |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 1  |          |               | 0.0%                |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 2  |          | —             | 0.0%                |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 3  |          |               | 0.0%                |           | be present, unless disturbed or problematic.  |  |  |
| 4  |          |               | 0.0%                |           | Definition of Vegetation Strata:  |  |  |
| 5  |          |               | 0.0%                |           | Four Vegetation Strata:   |  |  |
| 6  | 0        |               | 0.0%                |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
| 7  |          |               | al Cover            |           | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  |  |  |
| Herb Stratum (Plot size:)                                  |          | _ 101         |                     |           | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1  | ·        |               | 0.0%                |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2  | 0        |               | 0.0%                |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3  | 0        |               | 0.0%                | . <u></u> | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4  | 0        |               | 0.0%                |           | in height.  |  |  |
| 5  | 0        |               | 0.0%                |           |   |  |  |
| 6  |          |               | 0.0%                |           | Five Vegetation Strata:   |  |  |
| 7  |          |               | 0.0%                |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  | 0        |               | 0.0%                |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9  | 0        | <u> </u>      | 0.0%                |           | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10   | 0        | <u> </u>      | 0.0%                |           | vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   |          | <u> </u>      | 0.0%                |           | than 3 in. (7.6 cm) DBH.<br>Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12   |          |               | 0.0%                |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                            |          | = 100         | al Cover            |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0        | $\square_{-}$ | 0.0%                |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2  | 0        | $\Box_{-}$    | 0.0%                |           | m) in height.   |  |  |
| 3  | 0        |               | 0.0%                |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  |          |               | 0.0%                |           | height.   |  |  |
| 5  | 0        |               | 0.0%                |           | Hydrophytic   |  |  |
| 6  | 0        |               | 0.0%                |           | Vegetation  |  |  |
|  | 0        | = To          | tal Cove            | •         | Present? Yes No   |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |               |                     |           |   |  |  |

| Profile Desc             | ription: (Describe to   | the depth r | needed to docume    | nt the indi   | cator or co | nfirm the a            | absence of indicators.)                               |                                    |   |
|--------------------------|-------------------------|-------------|---------------------|---------------|-------------|------------------------|---|------------------------------------|---|
| Depth                    | Matrix                  |             | R                   | edox Featu    | ures        |                        |   |                                    |   |
| (inches)                 | Color (moist)           | %           | Color (moist)       | %             | Tvpe        | Loc <sup>2</sup>       | Texture   | Remarks                            |   |
| 0-21                     | 10YR 3/1                | 80          | 5YR 4/6             | 20            | C           | M                      | Loam  |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          | <u></u>                 |             |                     |               |             | -                      |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          | ·                       |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
| -                        |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletio | n. RM=Redu  | ced Matrix, CS=Cove | ered or Coat  | ed Sand Gra | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M                             | atrix                              |   |
| Hydric Soil              | Indicators:             |             |                     |               |             |                        | Indicators for Proble                                 | ematic Hydric Soils <sup>3</sup> : | - |
| Histosol                 | (A1)                    |             | Dark Surface        | (S7)          |             |                        | 2 cm Muck (A10)                                       |                                    |   |
| Histic Epi               | ipedon (A2)             |             | Polyvalue Bel       | ow Surface    | (S8) (MLRA  | 147,148)               |   |                                    |   |
| Black His                | tic (A3)                |             | Thin Dark Su        | rface (S9) (I | MLRA 147, 1 | 148)                   | Coast Prairie Redo<br>(MLRA 147,148)                  | ox (A16)                           |   |
| Hydrogei                 | n Sulfide (A4)          |             | Loamy Gleye         | d Matrix (F2  | )           |                        | Piedmont Floodpl                                      | ain Soils (F10)                    |   |
| Stratified               | Layers (A5)             |             | Depleted Mat        | rix (F3)      |             |                        | (MLRA 136, 147)                                       |                                    |   |
| 2 cm Mu                  | ck (A10) (LRR N)        |             | Redox Dark S        | Surface (F6)  |             |                        | Very Shallow Darl                                     | k Surface (TF12)                   |   |
| Depleted                 | Below Dark Surface (A   | .11)        | Depleted Dar        | k Surface (F  | 7)          |                        | Other (Explain in Remarks)                            |                                    |   |
| Thick Da                 | rk Surface (A12)        |             | Redox Depre         | ssions (F8)   |             |                        |   | ······,                            |   |
| Sandy M                  | uck Mineral (S1) (LRR N | J,          | Iron-Mangan         | ese Masses    | (F12) (LRR  | N,                     |   |                                    |   |
| MLRA 14                  | 7, 148)                 |             | MLRA 136)           | (=) (1.1      |             |                        |   |                                    |   |
|                          | eyed Matrix (S4)        |             | Umbric Surfa        |               |             |                        | <sup>3</sup> Indicators of hydrophytic vegetation and |                                    |   |
| Sandy Re                 |                         |             | Piedmont Flo        |               |             |                        | wetland hyd   | Irology must be present,           |   |
| Stripped                 | Matrix (S6)             |             | Red Parent M        | laterial (F21 | ) (MLRA 12  | 7, 147)                | unless disturbed or problematic.                      |                                    |   |
| Restrictive L            | _ayer (if observed):    |             |                     |               |             |                        |   |                                    |   |
| Туре:                    |                         |             |                     |               |             |                        |   |                                    |   |
| Depth (inc               | ches):                  |             |                     |               |             |                        | Hydric Soil Present?                                  | Yes 🔍 No 🔾                         |   |
| Remarks:                 |                         |             |                     |               |             |                        | 1   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
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|                          |                         |             |                     |               |             |                        |   |                                    |   |
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|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
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|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |
|                          |                         |             |                     |               |             |                        |   |                                    |   |

| Project/Site: Telesto Solar Project  | City/County:                | Cecilia/Hardin                          | Sampl                                | ling Date: 23-Feb-21     |
|--|-----------------------------|---|--------------------------------------|--------------------------|
| Applicant/Owner: 7x Energy   |                             | State: KY                               | Sampling Po                          | int: D-022               |
| Investigator(s):   | Section, Town               | nship, Range: S                         | т                                    | R                        |
| Landform (hillslope, terrace, etc.): Flat  | Local relief (co            | ncave, convex, none):                   | flat                                 | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.68118                    | Long.: -{                               | 35.94736                             | Datum: WGS 1984          |
| Soil Map Unit Name: CrC - Crider silt loam, 6 to 12 percent slopes.  |                             |   | NWI classification:                  | N/A                      |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲<br>ly disturbed? | No 🔾 (If no, expla<br>Are "Normal Circu | in in Remarks.)<br>nstances" present | ? Yes $ullet$ No $igcap$ |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | roblematic?                 | (If needed, explain                     | n any answers in R                   | emarks.)                 |
| Summary of Findings - Attach site map showing s  | ampling po                  | oint locations, tr                      | ansects, impo                        | ortant features, etc.    |

| Hydrophytic Vegetation Present? | Yes O                  | No   |                     |                              |  |  |
|---------------------------------|------------------------|------|---------------------|------------------------------|--|--|
| Hydric Soil Present?            | Yes 🔾                  | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\bigcirc$ |  |  |
| Wetland Hydrology Present?      | $_{ m Yes}$ $\bigcirc$ | No 🖲 | within a Wetland?   |                              |  |  |
| Remarks:                        |                        |      |                     |                              |  |  |
|                                 |                        |      |                     |                              |  |  |
|                                 |                        |      |                     |                              |  |  |
|                                 |                        |      |                     |                              |  |  |

| Wetland Hydrology Indicate                         | ors:                  |            |  |                    | Secondary Indicators (minimum of two required) |
|--|-----------------------|------------|--|--------------------|--|
| Primary Indicators (minimu                         | um of one             | required;  | check all that apply)                  |                    | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                       |            | True Aquatic Plants (B14)              |                    | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                       |            | Hydrogen Sulfide Odor (C1)             |                    | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                       |            | Oxidized Rhizospheres along Living     | Roots (C3)         | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                       |            | Presence of Reduced Iron (C4)          |                    | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                       |            | Recent Iron Reduction in Tilled Soils  | s (C6)             | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                       |            | Thin Muck Surface (C7)                 |                    | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                       |            | Other (Explain in Remarks)             |                    | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                       |            |  |                    | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (          | B7)        |  |                    | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                     |            |  |                    | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                       |            |  |                    | FAC-neutral Test (D5)                          |
| Field Observations:                                | $\sim$                |            |  |                    |  |
| Surface Water Present?                             | Yes $\bigcirc$        | No 🖲       | Depth (inches):                        |                    |  |
| Water Table Present?                               | $_{\rm Yes} \bigcirc$ | No 🖲       | Depth (inches):                        |                    | rology Present? Yes 🔿 No 🖲                     |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes} \bigcirc$ | No 🖲       | Depth (inches):                        | Wetland Hyd        | rology Present? Yes $\bigcirc$ No $ullet$      |
| Describe Recorded Data (st                         | ream gaug             | je, monito | ring well, aerial photos, previous ins | pections), if avai | lable:   |
|  |                       |            |  |                    |  |
| Remarks:   |                       |            |  |                    |  |
| No hydro characteristics.                          |                       |            |  |                    |  |
|  |                       |            |  |                    |  |
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|  |                       |            |  |                    |  |

|  | Dominant<br>Species? |              |           | Sampling Point: D-022   |  |  |
|--|----------------------|--------------|-----------|---|--|--|
|  | Absolute             | Rel.Strat.   | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |              | Status    | Number of Dominant Species  |  |  |
| 1. Acer nigrum   | 75                   | 78.9%        | FACU      | That are OBL, FACW, or FAC: (A)   |  |  |
| 2. Celtis occidentalis                                     | 15                   | 15.8%        | FACU      | Total Number of Dominant  |  |  |
| 3. Ulmus americana   |                      | 5.3%         | FACW      | Species Across All Strata: (B)  |  |  |
| 4  |                      | 0.0%         |           | Percent of dominant Species   |  |  |
| 5  |                      | 0.0%         |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)   |  |  |
| 6  |                      |              |           |   |  |  |
| 7  |                      |              |           | Prevalence Index worksheet:   |  |  |
| 8  |                      | 0.0%         |           | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95                   |              |           | OBL species $0 \times 1 = 0$  |  |  |
| 1  | 0                    | 0.0%         |           | FACW species $5 \times 2 = 10$  |  |  |
| 2  | 0                    | 0.0%         |           | FAC species $0 \times 3 = 0$  |  |  |
| 3  | 0                    | 0.0%         | . <u></u> | FACU species $90 \times 4 = 360$  |  |  |
| 4  | 0                    | 0.0%         | . <u></u> | UPL species $0 \times 5 = 0$  |  |  |
| 5  | 0                    | 0.0%         |           | Column Totals: (A) (B)  |  |  |
| 6  | 0                    | 0.0%         |           | Prevalence Index = $B/A = 3.895$  |  |  |
| 7  | 0                    | 0.0%         |           | Hydrophytic Vegetation Indicators:  |  |  |
| 8  | 0                    | 0.0%         |           | Rapid Test for Hydrophytic Vegetation   |  |  |
| 9  | 0                    | 0.0%         |           | Dominance Test is > 50%   |  |  |
| 10   | 0                    | 0.0%         |           | Prevalence Index is ≤3.0 <sup>1</sup>   |  |  |
| Shrub Stratum (Plot size:)                                 | 0                    | = Total Cove | r         | Morphological Adaptations <sup>1</sup> (Provide supporting  |  |  |
| 1  |                      | 0.0%         |           | data in Remarks or on a separate sheet)   |  |  |
| 2  |                      | 0.0%         |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3  |                      | 0.0%         |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4  | 0                    | 0.0%         |           | be present, unless disturbed or problematic.  |  |  |
| 5  | 0                    | 0.0%         |           | Definition of Vegetation Strata:  |  |  |
| 6  | 0                    | 0.0%         |           | Four Vegetation Strata:   |  |  |
| 7  | 0                    | 0.0%         |           | Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),        |  |  |
| Herb Stratum (Plot size:)                                  | 0                    | = Total Cove | r         | regardless of height.   |  |  |
| 1  |                      | 0.0%         |           | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2.   | 0                    | 0.0%         |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 3  | 0                    | 0.0%         |           | regardless of size, and all other plants less than 3.28 ft tall.  |  |  |
| 4  | 0                    | 0.0%         |           | Woody vines – Consists of all woody vines greater than 3.28 ft in height.   |  |  |
| 5  | 0                    | 0.0%         | . <u></u> | in neight.  |  |  |
| 6  | 0                    | 0.0%         |           | Five Vegetation Strata:   |  |  |
| 7  | 0                    | 0.0%         |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8  | 0                    | 0.0%         |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in  |  |  |
| 9  | 0                    | 0.0%         |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                             |  |  |
| 10   | 0                    | 0.0%         |           | vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   | 0                    | 0.0%         |           | than 3 in. (7.6 cm) DBH.  |  |  |
| 12   | 0                    | 0.0%         |           | Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |
| Woody Vine Stratum (Plot size:)                            | 0                    | = Total Cove | r         | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1  | 0                    | 0.0%         |           | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1      |  |  |
| 2  | 0                    | 0.0%         |           | m) in height.   |  |  |
| 3  |                      | 0.0%         |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4  | -                    | 0.0%         |           | height.   |  |  |
| 5  | 0                    | 0.0%         |           | Hydrophytic   |  |  |
| 6  | 0                    | 0.0%         |           | Hydrophytic<br>Vegetation   |  |  |
|  | 0                    | = Total Cove | r         | Present? Yes No 💿   |  |  |
| Remarks: (Include photo numbers here or on a separate shee |                      |              |           | 1   |  |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

| Profile Desc             | ription: (Describe to                       | the depth       | needed to document         | t the indica    | tor or cor | nfirm the a           | absence of indicators.)              |  |  |
|--------------------------|---|-----------------|----------------------------|-----------------|------------|-----------------------|--------------------------------------|--|--|
| Depth                    | Matrix                                      |                 |                            | dox Feature     |            |                       |                                      |  |  |
| (inches)<br>0-21         | Color (moist)<br>10YR 3/3                   | <u>%</u><br>100 | Color (moist)              | %               | Tvpe       | Loc <sup>2</sup>      | Texture                              | Remarks  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       | ,,                                   |  |  |
|                          | s   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletio                     | on. RM=Redu     | iced Matrix, CS=Cover      | ed or Coated    | Sand Gra   | ns <sup>2</sup> Locat | tion: PL=Pore Lining. M=M            | atrix  |  |
| Hydric Soil              |   |                 |                            | (- <b>7</b> )   |            |                       | Indicators for Proble                | ematic Hydric Soils <sup>3</sup> :                 |  |
| Histosol                 | (A1)<br>ipedon (A2)                         |                 | Dark Surface (             |                 | 8) (MIRA   | 147 148)              | 2 cm Muck (A10)                      | (MLRA 147)   |  |
| Black His                |   |                 | Thin Dark Surf             |                 |            |                       | Coast Prairie Redo<br>(MLRA 147,148) | ox (A16)   |  |
|                          | n Sulfide (A4)                              |                 | Loamy Gleyed               | Matrix (F2)     |            |                       | Piedmont Floodpl                     | ain Soils (F19)                                    |  |
|                          | Layers (A5)                                 |                 | Depleted Matri             |                 |            |                       | (MLRA 136, 147)                      |  |  |
|                          | ck (A10) (LRR N)<br>I Below Dark Surface (A | 11)             | Redox Dark Su              | • • •           |            |                       | Very Shallow Dark Surface (TF12)     |  |  |
|                          | rk Surface (A12)                            | (11)            | Redox Depress              |                 |            |                       | Other (Explain in                    | Remarks)   |  |
| _                        | uck Mineral (S1) (LRR N                     | Ν,              | Iron-Manganes<br>MLRA 136) | se Masses (F    | 12) (LRR M | ١,                    |                                      |  |  |
|                          | leyed Matrix (S4)                           |                 | Umbric Surface             |                 |            |                       | <sup>3</sup> Indicators of           | hydrophytic vegetation and                         |  |
|                          | edox (S5)<br>Matrix (S6)                    |                 | Piedmont Floo              |                 |            |                       | wetland hyd                          | rology must be present,<br>sturbed or problematic. |  |
|                          |   |                 | Red Parent Ma              | iteriai (F21) ( | IVILRA 127 | , 147)                |                                      | Sturbed of problematic.                            |  |
| Restrictive I            | Layer (if observed):                        |                 |                            |                 |            |                       |                                      |  |  |
| Depth (ind               | ches):                                      |                 |                            |                 |            |                       | Hydric Soil Present?                 | Yes 🔿 No 🖲   |  |
| Remarks:                 |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |
|                          |   |                 |                            |                 |            |                       |                                      |  |  |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Samp                                  | bling Date: 23-Feb-21             |
|---|------------------|----------------------|---------------------------------------|-----------------------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling P                            | oint: D-023                       |
| Investigator(s): J. Stelly and C. Hoffman   | Section, Town    | nship, Range: S      | т                                     | R                                 |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | flat                                  | Slope: <u>0.0%</u> / <u>0.0</u> ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.67898         | Long.:               | -85.94926                             | Datum: WGS 1984                   |
| Soil Map Unit Name: CrB - Crider silt loam, 2 to 6 percent slopes.  |                  |                      | NWI classification                    | n: N/A                            |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                      | ain in Remarks.)<br>ımstances" presen | t? Yes $ullet$ No $igcap$         |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | problematic?     | (If needed, expla    | in any answers in I                   | Remarks.)                         |
| Summary of Findings - Attach site map showing s   | ampling po       | int locations, t     | ransects, imp                         | ortant features, etc.             |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------|----------------------|---------------------------------------|---|
| Remarks:  |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |

| Wetland Hydrology Indicate                         | ors:                  |            |   | Secondary Indicators (minimum of two required)              |
|--|-----------------------|------------|---|---|
| Primary Indicators (minimu                         | um of one             | required;  | check all that apply)                           | Surface Soil Cracks (B6)                                    |
| Surface Water (A1)                                 |                       |            | True Aquatic Plants (B14)                       | Sparsely Vegetated Concave Surface (B8)                     |
| High Water Table (A2)                              |                       |            | Hydrogen Sulfide Odor (C1)                      | Drainage Patterns (B10)                                     |
| Saturation (A3)                                    |                       |            | Oxidized Rhizospheres along Living Roots (C3)   | ) Moss Trim Lines (B16)                                     |
| Water Marks (B1)                                   |                       |            | Presence of Reduced Iron (C4)                   | Dry Season Water Table (C2)                                 |
| Sediment Deposits (B2)                             |                       |            | Recent Iron Reduction in Tilled Soils (C6)      | Crayfish Burrows (C8)                                       |
| Drift deposits (B3)                                |                       |            | Thin Muck Surface (C7)                          | Saturation Visible on Aerial Imagery (C9)                   |
| Algal Mat or Crust (B4)                            |                       |            | Other (Explain in Remarks)                      | Stunted or Stressed Plants (D1)                             |
| Iron Deposits (B5)                                 |                       |            |   | Geomorphic Position (D2)                                    |
| Inundation Visible on Aeria                        | al Imagery (          | B7)        |   | Shallow Aquitard (D3)                                       |
| Water-Stained Leaves (B9)                          | )                     |            |   | Microtopographic Relief (D4)                                |
| Aquatic Fauna (B13)                                |                       |            |   | FAC-neutral Test (D5)                                       |
| Field Observations:                                | $\sim$                | $\sim$     |   |   |
| Surface Water Present?                             | Yes $\bigcirc$        | No 🖲       | Depth (inches):                                 |   |
| Water Table Present?                               | $_{\rm Yes} \bigcirc$ | No 🖲       | Depth (inches):                                 | nd Hydrology Present? Yes $\bigcirc$ No $oldsymbol{igodol}$ |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes} \bigcirc$ | No 🖲       | Wetla<br>Depth (inches):                        | nd Hydrology Present? Yes 🔾 No 🖲                            |
|  | ream gauç             | ge, monito | ring well, aerial photos, previous inspections) | , if available:   |
|  |                       |            |   |   |
| Remarks:   |                       |            |   |   |
| No hydro characteristics.                          |                       |            |   |   |
|  |                       |            |   |   |
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|  |                       |            |   |   |

|  |          | Domin     |       |          | Sampling Point: D-023  |  |  |  |
|--|----------|-----------|-------|----------|--|--|--|--|
|  | Absolute |           | rat.  | ndicator | Dominance Test worksheet:  |  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |           |       | Status   | Number of Dominant Species   |  |  |  |
| 1. Acer nigrum   | 75       |           |       | FACU     | That are OBL, FACW, or FAC: (A)  |  |  |  |
| 2. Celtis occidentalis                                     | 15       |           | .8%   | FACU     | Total Number of Dominant   |  |  |  |
| 3. Ulmus americana   |          |           | .3%   | FACW     | Species Across All Strata: (B)   |  |  |  |
| 4  | -        |           | .0%   |          | Dereent of dominant Species  |  |  |  |
| 5  |          |           | .0%   |          | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |  |  |  |
| 6  |          |           | .0%   |          |  |  |  |  |
| 7  |          |           | .0%   |          | Prevalence Index worksheet:  |  |  |  |
| 8  |          |           | .0%   |          | Total % Cover of: Multiply by:   |  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 95       | = Total ( | Cover |          | OBL species         0         x 1 =         0  |  |  |  |
| 1  | •        | 0.        | .0%   |          | FACW species $5 \times 2 = 10$   |  |  |  |
| 2  | 0        | 0.        | .0%   |          | FAC species $0 \times 3 = 0$   |  |  |  |
| 3  | 0        | 0.        | .0%   |          | FACU species $90 \times 4 = 360$   |  |  |  |
| 4  | 0        | 0.        | .0%   |          | UPL species $0 \times 5 = 0$   |  |  |  |
| 5  | 0        | 0.        | .0%   |          | Column Totals:95(A)370(B)  |  |  |  |
| 6  | 0        | 0.        | .0%   |          | Prevalence Index = B/A =3.895  |  |  |  |
| 7  | 0        | 0.        | .0%   |          | Hydrophytic Vegetation Indicators:   |  |  |  |
| 8  | 0        | 0.        | .0%   |          | Rapid Test for Hydrophytic Vegetation  |  |  |  |
| 9  | 0        | 0.        | .0%   |          | Dominance Test is > 50%  |  |  |  |
| 10   | 0        | 0.        | .0%   |          | $\square \text{ Prevalence Index is } \leq 3.0^{-1}$   |  |  |  |
| Shrub Stratum (Plot size:)                                 |          | = Total ( | Cover |          | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |  |
| <u> </u>   |          | 0.        | .0%   |          | data in Remarks or on a separate sheet)  |  |  |  |
| 2  |          | 0.        | .0%   |          | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |  |
| 3  |          | 0.        | .0%   |          | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |  |
| 4  | 0        | 0.        | .0%   |          | be present, unless disturbed or problematic.   |  |  |  |
| 5  | 0        | 0.        | .0%   |          | Definition of Vegetation Strata:   |  |  |  |
| 6  | 0        | 0.        | .0%   |          | Four Vegetation Strata:  |  |  |  |
| 7  | 0        | 0.        | .0%   |          | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),        |  |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = Total ( | Cover |          | regardless of height.  |  |  |  |
| 1  |          | 0.        | .0%   |          | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |  |
| 2.   | 0        | 0.        | .0%   |          | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |  |
| 3  | 0        | 0.        | .0%   |          | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |  |
| 4  | 0        | 0.        | .0%   |          | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |  |
| 5  | 0        | 0.        | .0%   |          | in neight.   |  |  |  |
| 6  | 0        | 0.        | .0%   |          | Five Vegetation Strata:  |  |  |  |
| 7  | 0        | 0.        | .0%   |          | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |  |
| 8  | 0        | 0.        | .0%   |          | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |  |
| 9  | 0        | 0.        | .0%   |          | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                                |  |  |  |
| 10   | 0        | 0.        | .0%   |          | vines, approximately 20 ft (6 m) or more in height and less  |  |  |  |
| 11   | 0        | 0.        | .0%   |          | than 3 in. (7.6 cm) DBH.   |  |  |  |
| 12   |          |           | .0%   |          | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |  |
| _Woody Vine Stratum_ (Plot size:)                          | 0        | = Total ( | Cover |          | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |  |
| 1  | 0        | 0.        | .0%   |          | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1      |  |  |  |
| 2  | 0        | 0.        | .0%   |          | m) in height.  |  |  |  |
| 3  |          | 0.        | .0%   |          | Woody vines – Consists of all woody vines, regardless of   |  |  |  |
| 4  | -        | 0.        | .0%   |          | height.  |  |  |  |
| 5  | 0        | 0.        | .0%   |          | Hydrophytic  |  |  |  |
| 6  | 0        | 0.        | .0%   |          | Vegetation   |  |  |  |
|  | 0        | = Total   | Cover |          | Present? Yes V No 🛡  |  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et )     |           |       |          |  |  |  |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

| Profile Desc             | ription: (Describe to              | the depth n     | eeded to document          | t the indica | ator or co        | nfirm the a            | bsence of indicators.)               |   |
|--------------------------|------------------------------------|-----------------|----------------------------|--------------|-------------------|------------------------|--------------------------------------|---|
| Depth                    | Matrix                             |                 |                            | dox Featur   |                   |                        |                                      |   |
| (inches)<br>0-21         | Color (moist)<br>10YR 3/3          | <u>%</u><br>100 | Color (moist)              | %            | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                              | Remarks   |
|                          |                                    |                 |                            |              |                   |                        | ,                                    |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          | р                                  |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    | ·               |                            |              |                   |                        |                                      |   |
| <sup>1</sup> Type: C=Cor | ncentration. D=Depletio            | n. RM=Reduc     | ced Matrix, CS=Cover       | ed or Coated | d Sand Gra        | ins <sup>2</sup> Locat | ion: PL=Pore Lining. M=Ma            | atrix   |
| Hydric Soil              |                                    |                 |                            | (7)          |                   |                        | Indicators for Proble                | ematic Hydric Soils <sup>3</sup> :                  |
| Histosol                 | (A1)<br>ipedon (A2)                |                 | Dark Surface (             |              | S8) (MLRA         | 147,148)               | 2 cm Muck (A10)                      | (MLRA 147)  |
| Black His                | stic (A3)                          |                 | Thin Dark Surf             |              |                   |                        | Coast Prairie Redo<br>(MLRA 147,148) | ox (A16)  |
|                          | n Sulfide (A4)                     |                 | Loamy Gleyed               |              |                   |                        | Piedmont Floodpla                    | ain Soils (F19)                                     |
|                          | l Layers (A5)<br>ck (A10) (LRR N)  |                 | Depleted Matri             |              |                   |                        | (MLRA 136, 147)                      | ( Surface (TE12)                                    |
|                          | l Below Dark Surface (A            | 11)             | Depleted Dark              | • • •        | )                 |                        | Very Shallow Dark                    |   |
| Thick Da                 | rk Surface (A12)                   |                 | Redox Depress              |              |                   |                        |                                      | Kennanksy   |
| Sandy Mi<br>MLRA 14      | uck Mineral (S1) (LRR N<br>7, 148) | l,              | Iron-Manganes<br>MLRA 136) |              |                   |                        |                                      |   |
|                          | leyed Matrix (S4)                  |                 |                            |              |                   |                        | <sup>3</sup> Indicators of           | hydrophytic vegetation and                          |
|                          | edox (S5)<br>Matrix (S6)           |                 | Piedmont Floo              |              |                   |                        | wetland hyd                          | lrology must be present,<br>sturbed or problematic. |
|                          | Layer (if observed):               |                 |                            |              |                   |                        |                                      |   |
| Туре:                    |                                    |                 |                            |              |                   |                        |                                      |   |
| Depth (ind               | ches):                             |                 |                            |              |                   |                        | Hydric Soil Present?                 | Yes 🔾 No 🖲  |
| Remarks:                 |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |
|                          |                                    |                 |                            |              |                   |                        |                                      |   |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin      | Sampli                                    | ng Date: 23-Feb-21       |
|---|------------------|---------------------|---|--------------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY           | Sampling Poin                             | nt: D-024                |
| Investigator(s): J. Stelly and C. Hoffman   | Section, Tow     | nship, Range: S     | т   | R                        |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none | ): flat                                   | Slope: $0.0\%$ / $0.0$ ° |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.67558         | Long.:              | -85.97091                                 | Datum: WGS 1984          |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes.  |                  |                     | NWI classification:                       | N/A                      |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                     | lain in Remarks.)<br>:umstances" present? | Yes 🔍 No 🔾               |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | problematic?     | (If needed, expl    | ain any answers in Re                     | emarks.)                 |
|   |                  |                     |   |                          |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | Yes •<br>Yes • | No <sup>()</sup><br>No <sup>()</sup> | Is the Sampled Area | Yes 💿 No 🔿 |
|---|----------------|--------------------------------------|---------------------|------------|
| Wetland Hydrology Present?                              | Yes 🖲          | No O                                 | within a Wetland?   |            |
| Remarks:  |                |                                      |                     |            |
| Wet-12  |                |                                      |                     |            |
|   |                |                                      |                     |            |
|   |                |                                      |                     |            |

| Wetland Hydrology Indicators:                              |  | Secondary Indicators (minimum of two required) |
|--|--|--|
| Primary Indicators (minimum of one required;               | check all that apply)                                | Surface Soil Cracks (B6)                       |
| Surface Water (A1)   | True Aquatic Plants (B14)                            | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                      | Hydrogen Sulfide Odor (C1)                           | Drainage Patterns (B10)                        |
| Saturation (A3)  | ✓ Oxidized Rhizospheres along Living Roots (C3)      | Moss Trim Lines (B16)                          |
| Water Marks (B1)   | Presence of Reduced Iron (C4)                        | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                     | Recent Iron Reduction in Tilled Soils (C6)           | Crayfish Burrows (C8)                          |
| Drift deposits (B3)  | Thin Muck Surface (C7)                               | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                    | Other (Explain in Remarks)                           | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)                  |  | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)                                |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  |  | ✓ FAC-neutral Test (D5)                        |
| Field Observations:  |  |  |
| Surface Water Present? Yes   No                            | Depth (inches):4                                     |  |
| Water Table Present? Yes O No O                            | Depth (inches):                                      | Hydrology Present? Yes $\odot$ No $\bigcirc$   |
| Saturation Present? (includes capillary fringe) Yes O No • | Wetland I Depth (inches):                            | Hydrology Present? Yes 🔍 No 🔾                  |
|  | oring well, aerial photos, previous inspections), if | available:                                     |
|  |  |  |
| Remarks:   |  |  |
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|  |                     |            | minant<br>ecies? - |           | Sampling Point: D-024  |  |  |  |
|--|---------------------|------------|--------------------|-----------|--|--|--|--|
|  | Absolute<br>% Cover | Re         | I.Strat.           | Indicator | Dominance Test worksheet:  |  |  |  |
| Tree Stratum (Plot size:)                                  |                     |            | ver                | Status    | Number of Dominant Species   |  |  |  |
| 1. Acer rubrum   | 50                  |            | 55.6%              | FAC       | That are OBL, FACW, or FAC:3(A)  |  |  |  |
| 2. Celtis laevigata  | 20                  |            | 22.2%<br>22.2%     | FACW      | Total Number of Dominant   |  |  |  |
| 3. Ulmus americana   |                     |            | 0.0%               | FACW      | Species Across All Strata: (B)   |  |  |  |
| 4  | -                   |            | 0.0%               |           | Percent of dominant Species  |  |  |  |
| 5  |                     |            | 0.0%               |           | That Are OBL, FACW, or FAC:100.0% (A/B)  |  |  |  |
| 6<br>7   |                     |            | 0.0%               |           | Prevalence Index worksheet:  |  |  |  |
| 8  | 0                   |            | 0.0%               |           | Total % Cover of: Multiply by:   |  |  |  |
|  | 90                  | <br>= To   | tal Cover          |           | 0BL species 0 x 1 = 0  |  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |                     | _          |                    |           | FACW species $40 \times 2 = 80$  |  |  |  |
| 1  | 0                   |            | 0.0%               |           | FAC species $50 \times 3 = 150$  |  |  |  |
| 2  | 0                   |            | 0.0%               |           | FACU species $0 \times 4 = 0$  |  |  |  |
| 3  |                     |            | 0.0%               |           |  |  |  |  |
| 4  |                     |            | 0.0%               |           |  |  |  |  |
| 5  |                     |            | 0.0%               |           | Column Totals: (A) (B)   |  |  |  |
| 6  |                     |            | 0.0%               |           | Prevalence Index = $B/A = 2.556$   |  |  |  |
| 7  |                     |            | 0.0%               |           | Hydrophytic Vegetation Indicators:   |  |  |  |
| 8  |                     |            | 0.0%               |           | Rapid Test for Hydrophytic Vegetation  |  |  |  |
| 9  |                     |            | 0.0%               |           | ✓ Dominance Test is > 50%  |  |  |  |
| 10   |                     | Ш_         | 0.0%               |           | <b>V</b> Prevalence Index is $\leq$ 3.0 <sup>1</sup>   |  |  |  |
| _Shrub Stratum_ (Plot size:)                               |                     | = To       | tal Cover          |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |  |
| 1  |                     |            | 0.0%               |           | data in Remarks or on a separate sheet)  |  |  |  |
| 2  | ·                   |            | 0.0%               |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |  |
| 3  |                     |            | 0.0%               |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.          |  |  |  |
| 4  |                     |            | 0.0%               |           |  |  |  |  |
| 5  |                     |            | 0.0%               |           | Definition of Vegetation Strata:   |  |  |  |
| 6  |                     |            | 0.0%               |           | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                 |  |  |  |
| 7  | 0                   | $\Box_{-}$ | 0.0%               |           | (7.6 cm) or more in diameter at breast height (DBH),   |  |  |  |
| Herb Stratum (Plot size:)                                  | 0                   | = To       | tal Cover          |           | regardless of height.<br>Sapling/shrub stratum – Consists of woody plants, excluding                                       |  |  |  |
| 1  |                     |            | 0.0%               |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |  |  |  |
| 2  | 0                   |            | 0.0%               |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |  |
| 3  | 0                   |            | 0.0%               |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |  |
| 4  | 0                   |            | 0.0%               |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |  |
| 5  | 0                   |            | 0.0%               |           |  |  |  |  |
| 6  |                     |            | 0.0%               |           | Five Vegetation Strata:  |  |  |  |
| 7  |                     |            | 0.0%               |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |  |
| 8  | 0                   |            | 0.0%               |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                             |  |  |  |
| 9  | 0                   |            | 0.0%               |           | Sapling stratum – Consists of woody plants, excluding woody  |  |  |  |
| 10   | 0                   |            | 0.0%               |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.                                       |  |  |  |
| 11   |                     |            | 0.0%               |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |  |
| 12   |                     |            | 0.0%<br>tal Cover  |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |  |
| _Woody Vine Stratum_ (Plot size:)                          |                     | _ 10       |                    |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody |  |  |  |
| 1  | 0                   |            | 0.0%               |           | species, except woody vines, less than approximately 3 ft (1   |  |  |  |
| 2  |                     |            | 0.0%               |           | m) in height.  |  |  |  |
| 3  |                     |            | 0.0%               |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |  |  |  |
| 4  |                     |            | 0.0%               |           |  |  |  |  |
| 5  | 0                   |            | 0.0%               |           | Hydrophytic  |  |  |  |
| 6  | 0                   |            | 0.0%               |           | Vegetation<br>Present? Yes • No ·  |  |  |  |
|  | 0                   | = To       | otal Cove          | r         |  |  |  |  |
| Remarks: (Include photo numbers here or on a separate shee | et.)                |            |                    |           |  |  |  |  |

| Depth<br>(inches)       Matrix       Reduct Features<br>Source       Toxture       Remarks         0.21       10/F       3/1       80       5/F       4/6       20       0       M       Leen         0.21       10/F       3/1       80       5/F       4/6       20       0       M       Leen         0.21       10/F       3/1       80       5/F       4/6       20       0       M       Leen       L   | Profile Descr | ription: (Des   | cribe to  | the depth | needed to    | documen   | t the indic   | ator or co  | onfirm the a            | bsence of indicators.)    |                   |                        |
|--|---------------|-----------------|-----------|-----------|--------------|-----------|---------------|-------------|-------------------------|---------------------------|-------------------|------------------------|
| 0-21       10YR       3/1       80       5YR       4/6       20       C       M       Loam         0-21       10YR       3/1       80       5YR       4/6       20       C       M       Loam         0-21       10YR       3/1       80       5YR       4/6       20       C       M       Loam         0 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>1</th> <th></th> <th></th> <th></th> <th></th>   |               |                 |           |           |              |           |               | 1           |                         |                           |                   |                        |
| <sup>1</sup> Type: C=Concentration. D=Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix         Hydric Soil Indicators:   |               |                 |           |           |              |           |               |             |                         |                           | Rer               | narks                  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 136)       Umbric Surface (F13) (MLRA 136, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 136, 122)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Attrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Hydric Soil Present?       Yes No  | 0-21          | 10YR            | 3/1       |           | 5YR          | 4/6       | 20            | C           |                         | Loam                      |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR N, MLRA 136)       Irron-Manganese Masses (F12) (LRR N, MLRA 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:   |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N,<br>MLRA 147, 148)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 146, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 147)         Restrictive Layer (if observed):<br>Type:       Type:         Type:  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 147)         Restrictive Layer (if observed):<br>Type:       Type:         Type:  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N,<br>MLRA 147, 148)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 146, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N,<br>MLRA 147, 148)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 146, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:  |               |                 |           | -         | p            |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:   |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:   |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:   |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 147, 147)         Type:   |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| Hydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR N, MLRA 136)       Irron-Manganese Masses (F12) (LRR N, MLRA 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:  | 1             |                 |           |           |              |           |               |             |                         |                           |                   |                        |
| I Histosol (A1)       □ Dark Surface (S7)         □ Histosol (A2)       □ Polyvalue Below Surface (S8) (MLRA 147, 148)         □ Black Histic (A3)       □ Thin Dark Surface (S9) (MLRA 147, 148)         □ Hydrogen Sulfide (A4)       □ Loamy Gleyed Matrix (F2)         □ Stratified Layers (A5)       □ Depleted Matrix (F3)         □ Depleted Below Dark Surface (A11)       □ Depleted Dark Surface (F7)         □ Depleted Below Dark Surface (A12)       I' Redox Depressions (F8)         □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □ Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)         □ Sandy Gleyed Matrix (S4)       □ Umbric Surface (F13) (MLRA 136, 122)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 147, 147)         ■ Stripped Matrix (S6)       □ Red Parent Material (F21) (MLRA 127, 147)         ■ Type:   |               |                 | Depletio  | n. RM=Red | uced Matrix, | CS=Cover  | red or Coate  | ed Sand Gra | ains <sup>2</sup> Locat |                           |                   |                        |
| Histic Epipedon (A2)        Polyvalue Below Surface (S8) (MLRA 147,148)            Black Histic (A3)          Thin Dark Surface (S9) (MLRA 147, 148)             Hydrogen Sulfide (A4)          Loamy Gleyed Matrix (F2)            Stratified Layers (A5)          Depleted Matrix (F3)            Depleted Below Dark Surface (A10)          Depleted Dark Surface (F6)            Depleted Below Dark Surface (A11)          Depleted Dark Surface (F7)            Thick Dark Surface (A12)          Redox Depressions (F8)            Sandy Muck Mineral (S1) (LRR N, MLRA 136)          Iron-Manganese Masses (F12) (LRR N, MLRA 146, 122)            Sandy Gleyed Matrix (S4)          Umbric Surface (F13) (MLRA 146, 122)            Sandy Redox (S5)          Piedmont Floodplain Soils (F19) (MLRA 148)            stripped Matrix (S6)          Red Parent Material (F21) (MLRA 127, 147)            Restrictive Layer (if observed):         Type:   | _             |                 |           |           |              | le Curf   | (57)          |             |                         | Indicators for Prob       | lematic Hydri     | c Soils <sup>3</sup> : |
| Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)<br>(MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)<br>(MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR N,<br>MLRA 147, 148)       Iron-Manganese Masses (F12) (LRR N,<br>MLRA 136) <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic.         Restrictive Layer (If observed):       Type:  |               |                 |           |           |              |           |               |             | 147 140                 | 2 cm Muck (A10            | ) (MLRA 147)      |                        |
| Black Histic (A3)       Inin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Other (Explain in Remarks)         Sandy Muck Mineral (S1) (LRR N, MLRA 136)       Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 147)       Unless disturbed or problematic.         Restrictive Layer (if observed):       Type:   |               |                 |           |           |              |           |               |             |                         | Coast Prairie Re          | dox (A16)         |                        |
| Stratified Layers (A5)       Depleted Matrix (F3)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Muck Mineral (S1) (LRR N, MLRA 136)       Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Restrictive Layer (if observed):       Type:         Type:  |               |                 |           |           |              |           |               |             | 148)                    |                           |                   |                        |
| □ 2 cm Muck (A10) (LRR N)       □ Redox Dark Surface (F6)       □ Very Shallow Dark Surface (TF12)         □ Depleted Below Dark Surface (A11)       □ Depleted Dark Surface (F7)       □ Other (Explain in Remarks)         □ Thick Dark Surface (A12)       Image: Redox Depressions (F8)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □ Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)       □ Sandy Gleyed Matrix (S4)       □ Umbric Surface (F13) (MLRA 136, 122)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)       □ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:  |               |                 |           |           |              |           |               | )           |                         | Piedmont Flood            | olain Soils (F19) | )                      |
| □ Depleted Below Dark Surface (A11)       □ Depleted Dark Surface (F7)       □ Other (Explain in Remarks)         □ Thick Dark Surface (A12)       ✓ Redox Depressions (F8)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □ Iron-Manganese Masses (F12) (LRR N, MLRA 136)       □ Other (Explain in Remarks)         □ Sandy Gleyed Matrix (S4)       □ Umbric Surface (F13) (MLRA 136, 122)       □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)         □ Stripped Matrix (S6)       □ Red Parent Material (F21) (MLRA 127, 147)       □ and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:  |               |                 |           |           |              |           |               |             |                         | (MLRA 136, 147            | )                 |                        |
| □       Thick Dark Surface (A12)       □       Redox Depressions (F8)         □       Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □       Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)         □       Sandy Gleyed Matrix (S4)       □       Umbric Surface (F13) (MLRA 136, 122)         □       Sandy Redox (S5)       □       Piedmont Floodplain Soils (F19) (MLRA 148)         □       Stripped Matrix (S6)       □       Red Parent Material (F21) (MLRA 127, 147)         Restrictive Layer (if observed):       Type:   | 2 cm Muc      | k (A10) (LRR I  | N)        |           |              |           |               |             |                         | Very Shallow Da           | rk Surface (TF    | 12)                    |
| Image: Sandy Muck Mineral (S1) (LRR N, MLRA 136)       Iron-Manganese Masses (F12) (LRR N, MLRA 136)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Restrictive Layer (if observed):       Type:         Type:   | Depleted      | Below Dark Su   | urface (A | 11)       |              |           |               | 7)          |                         | Other (Explain i          | n Remarks)        |                        |
| MLRA 147, 148)       MLRA 136)         MLRA 147, 148)       Umbric Surface (F13) (MLRA 136, 122)         Sandy Gleyed Matrix (S4)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)         Restrictive Layer (if observed):       Type:         Type:       Hydric Soil Present?         Yes       No   | Thick Dar     | k Surface (A12  | 2)        |           |              |           |               |             |                         |                           |                   |                        |
| Image: Micro 147, 140       Image: Micro 147, 140       Image: Micro 147, 140       Image: Micro 147, 140         Sandy Gleyed Matrix (S4)       Image: Umbric Surface (F13) (MLRA 136, 122)       Image: Micro 148       Image: Micro 148         Sandy Redox (S5)       Image: Piedmont Floodplain Soils (F19) (MLRA 148)       Image: Micro 148       Image: Micro 148         Stripped Matrix (S6)       Image: Red Parent Material (F21) (MLRA 127, 147)       Image: Micro 148       Image: Micro 148         Restrictive Layer (if observed):       Image: Micro 148       Image: Micro 148       Image: Micro 148         Type: Image: Micro 148         Depth (inches): Image: Micro 148         Micro 148       Image: Micro 148         Depth (inches): Image: Micro 148         Micro 148       Image: Micro 148 | Sandy Mu      | uck Mineral (S1 | I) (LRR N | l,        |              |           | se Masses (   | (F12) (LRR  | Ν,                      |                           |                   |                        |
| Image: Second matrix (Sr)       Piedmont Floodplain Soils (F19) (MLRA 148)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes  |               |                 |           |           |              | ,         | (540) (14     |             |                         |                           |                   |                        |
| Image: Saidy Redux (s3)       Image: Hedinion Hoodpain Soils (FF) (MERK F40)       wetland hydrology must be present, unless disturbed or problematic.         Image: Stripped Matrix (S6)       Image: Red Parent Material (F21) (MLRA 127, 147)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:   |               |                 | 4)        |           |              |           |               |             |                         | <sup>3</sup> Indicators o | f hydrophytic y   | egetation and          |
| Restrictive Layer (if observed):   |               |                 |           |           |              |           |               |             |                         | wetland h                 | drology must l    | pe present,            |
| Type:  | Stripped I    | Matrix (S6)     |           |           | Rec          | Parent Ma | aterial (F21) | ) (MLRA 12  | 7, 147)                 | unless                    | listurbed or pro  | blematic.              |
| Type:  | Restrictive L | ayer (if obse   | rved):    |           |              |           |               |             |                         |                           |                   |                        |
|  | Туре:         |                 |           |           |              |           |               |             |                         |                           | ~                 |                        |
|  | Depth (inc    | hes):           |           |           |              |           |               |             |                         | Hydric Soil Present?      | Yes 🔍             | No 🔾                   |
|  | • •           | <i>,</i> .      |           |           |              |           |               |             |                         |                           |                   |                        |
|  | Remarks.      |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  | I             |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  | 1             |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
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|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
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|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  | 1             |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  | 1             |                 |           |           |              |           |               |             |                         |                           |                   |                        |
|  |               |                 |           |           |              |           |               |             |                         |                           |                   |                        |

| Project/Site: Telesto Solar Project                            | City/County:                             | Cecilia/Hardin       | Sam  | pling Date: 23-Feb-21             |
|--|--|----------------------|--|-----------------------------------|
| Applicant/Owner: 7x Energy                                     |  | State: KY            | Sampling P   | oint: D-025                       |
| Investigator(s):   | Section, Towr                            | nship, Range: S      | т  | R                                 |
| Landform (hillslope, terrace, etc.): Flat                      | Local relief (cor                        | ncave, convex, none) | : flat   | Slope: <u>0.0%</u> / <u>0.0</u> ° |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.67557                                 | Long.:               | -85.97085  | Datum: WGS 1984                   |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |  |                      | NWI classification   | n: N/A                            |
|  | ear? Yes<br>ly disturbed?<br>roblematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" preser<br>ain any answers in |                                   |
| Summary of Findings - Attach site map showing s                | ampling po                               | int locations, t     | ransects, imp  | oortant features, etc.            |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

|  | ors:                   |            |   | Secondary Indicators (minimum of two required) |
|--|------------------------|------------|---|--|
| Primary Indicators (minimu                         | um of one              | required;  | check all that apply)                               | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                        |            | True Aquatic Plants (B14)                           | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                        |            | Hydrogen Sulfide Odor (C1)                          | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                        |            | Oxidized Rhizospheres along Living Roots (C3)       | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                        |            | Presence of Reduced Iron (C4)                       | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                        |            | Recent Iron Reduction in Tilled Soils (C6)          | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                        |            | Thin Muck Surface (C7)                              | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                        |            | Other (Explain in Remarks)                          | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                        |            |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (           | B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                      |            |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                        |            |   | FAC-neutral Test (D5)                          |
| Field Observations:                                |                        | 0          |   |  |
| Surface Water Present?                             | Yes $\bigcirc$         | No 🖲       | Depth (inches):                                     |  |
| Water Table Present?                               | Yes $\bigcirc$         | No 🖲       | Depth (inches):                                     | Hydrology Present? Yes O No 🖲                  |
| Saturation Present?<br>(includes capillary fringe) | $_{ m Yes}$ $\bigcirc$ | No 🖲       | Depth (inches):                                     | Hydrology Present? Yes 🔾 No 🖲                  |
| Describe Recorded Data (st                         | ream gaug              | ge, monito | ring well, aerial photos, previous inspections), if | available:                                     |
|  |                        |            |   |  |
| Remarks:   |                        |            |   |  |
| Normanity.   |                        |            |   |  |
| No hydro characteristics.                          |                        |            |   |  |
|  |                        |            |   |  |
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|  |                        |            |   |  |
|  |                        |            |   |  |

|  | Dominant |             |           |           | Sampling Point: D-025  |  |  |
|--|----------|-------------|-----------|-----------|--|--|--|
|  | Absolute | iten.ou ut. |           | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |             |           | Status    | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 50       |             | 58.8%     | FACU      | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis occidentalis                                     | 30       |             | 35.3%     | FACU      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          |             | 5.9%      | FACW      | Species Across All Strata: (B)   |  |  |
| 4  | -        |             | 0.0%      |           | Dereent of dominant Species  |  |  |
| 5  |          |             | 0.0%      |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:(A/B)  |  |  |
| 6  |          |             | 0.0%      |           |  |  |  |
| 7  | _        |             | 0.0%      |           | Prevalence Index worksheet:  |  |  |
| 8  |          | <u> </u>    | 0.0%      |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = 10        | tal Cover |           | OBL species $0 \times 1 = 0$   |  |  |
| 1  | 0        |             | 0.0%      |           | FACW species $5 \times 2 = 10$   |  |  |
| 2  | _        |             | 0.0%      |           | FAC species $0 \times 3 = 0$   |  |  |
| 3.   | 0        |             | 0.0%      |           | FACU species $80 \times 4 = 320$   |  |  |
| 4.   |          |             | 0.0%      |           | UPL species $0 \times 5 = 0$   |  |  |
| 5  | 0        |             | 0.0%      |           | Column Totals: <u>85</u> (A) <u>330</u> (B)  |  |  |
| 6  | 0        |             | 0.0%      |           | Prevalence Index = B/A = 3.882   |  |  |
| 7  | 0        |             | 0.0%      |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  | _        |             | 0.0%      |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  |          |             | 0.0%      |           | Dominance Test is > 50%  |  |  |
| 10   | 0        |             | 0.0%      |           | Prevalence Index is $\leq 3.0^{-1}$  |  |  |
| Shrub Stratum (Plot size:)                                 | 0        | = To        | tal Cover |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1  |          |             | 0.0%      |           | data in Remarks or on a separate sheet)  |  |  |
| 2  |          |             | 0.0%      |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |          |             | 0.0%      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  |          |             | 0.0%      |           | be present, unless disturbed or problematic.   |  |  |
| 5  |          |             | 0.0%      |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0        |             | 0.0%      |           | Four Vegetation Strata:  |  |  |
| 7  | 0        |             | 0.0%      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH),  |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = To        | tal Cover |           | regardless of height.  |  |  |
|  |          |             | 0.0%      |           | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 12   | 0        |             | 0.0%      |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall.<br>Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height. |  |  |
| 3  | 0        |             | 0.0%      |           |  |  |  |
| 4  | 0        | $\square$   | 0.0%      |           |  |  |  |
| 5  | 0        |             | 0.0%      |           |  |  |  |
| 6  | 0        |             | 0.0%      |           | Fire Manadation Charles  |  |  |
| 7  | -        |             | 0.0%      |           | Five Vegetation Strata:  |  |  |
| 8  | 0        |             | 0.0%      |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in  |  |  |
| 9  | 0        |             | 0.0%      |           | diameter at breast height (DBH).   |  |  |
| 10   | 0        |             | 0.0%      |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   |          |             | 0.0%      |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |          |             | 0.0%      |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
| Woody Vine Stratum (Plot size:)                            |          | = To        | tal Cover |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
|  | 0        |             | 0.0%      |           | including herbaceous vines, regardless of size, and woody  |  |  |
| 12   |          |             | 0.0%      |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |  |  |
| 23   |          |             | 0.0%      |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 3<br>4   | -        | $\square$   | 0.0%      |           | height.  |  |  |
| 5  | 0        |             | 0.0%      |           |  |  |  |
| 6  | 0        |             | 0.0%      |           | Hydrophytic<br>Vegetation  |  |  |
| 0  | 0        |             | tal Cove  |           | Present? Yes No 🖲  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |          |             |           |           |  |  |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

| Profile Desc             | ription: (Describe to  | the depth r     | needed to document         | t the indica | ator or co | nfirm the a      | bsence of indicators.)   |                                    |  |  |
|--------------------------|--|-----------------|----------------------------|--------------|------------|------------------|--|------------------------------------|--|--|
| Depth                    | Matrix   |                 |                            | dox Featur   |            |                  |  |                                    |  |  |
| (inches)<br>0-21         | Color (moist)<br>10YR 3/3  | <u>%</u><br>100 | Color (moist)              | %            |            | Loc <sup>2</sup> | <u>Texture</u><br>Loam   | Remarks                            |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 | · ·                        |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  | p  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
| <sup>1</sup> Type: C=Cor | <sup>1</sup> Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix |                 |                            |              |            |                  |  |                                    |  |  |
| Hydric Soil              |  |                 | Dark Curfage (             | (77)         |            |                  | Indicators for Proble  | ematic Hydric Soils <sup>3</sup> : |  |  |
| Histosol                 | (AT)<br>ipedon (A2)  |                 | Dark Surface (             |              | S8) (MLRA  | 147,148)         | 2 cm Muck (A10) (MLRA 147)   |                                    |  |  |
| Black His                | tic (A3)   |                 | Thin Dark Surf             |              |            |                  | Coast Prairie Redox (A16)<br>(MLRA 147,148)                            |                                    |  |  |
|                          | n Sulfide (A4)   |                 | Loamy Gleyed               |              |            |                  | Piedmont Floodplain Soils (F19)  |                                    |  |  |
|                          | ified Layers (A5)     Depleted Matrix (F3)       Muck (A10) (LRR N)     Redox Dark Surface (F6)  |                 |                            |              |            |                  | (MLRA 136, 147) Very Shallow Dark Surface (TF12)                       |                                    |  |  |
|                          | Below Dark Surface (A  | 11)             | Depleted Dark              | Surface (F7  | )          |                  | Other (Explain in I  |                                    |  |  |
|                          | rk Surface (A12)   |                 | Redox Depress              |              |            |                  |  |                                    |  |  |
| Sandy M<br>MLRA 14       | uck Mineral (S1) (LRR N<br>7, 148)   | ١,              | Iron-Manganes<br>MLRA 136) |              |            |                  |  |                                    |  |  |
|                          | Umbric Surface (F13) (MLRA 136, 122)   |                 |                            |              |            |                  | <sup>3</sup> Indicators of hydrophytic vegetation and                  |                                    |  |  |
|                          | Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       |                 |                            |              |            |                  | wetland hydrology must be present,<br>unless disturbed or problematic. |                                    |  |  |
| Restrictive L            | ayer (if observed):  |                 |                            |              |            |                  |  |                                    |  |  |
| Туре:                    |  |                 |                            |              |            |                  |  |                                    |  |  |
| Depth (ind               | ches):   |                 |                            |              |            |                  | Hydric Soil Present?   | Yes 🔾 No 🖲                         |  |  |
| Remarks:                 |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |
|                          |  |                 |                            |              |            |                  |  |                                    |  |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampli                | ing Date: 23-F | e: 23-Feb-21  |  |  |
|--|------------------|---------------------|-----------------------|----------------|---------------|--|--|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poir         | nt: D          | -026          |  |  |
| Investigator(s): J. Stelly and C. Hoffmann                                 | Section, Tow     | nship, Range: S     | т                     | R              |               |  |  |
| Landform (hillslope, terrace, etc.): Flat                                  | Local relief (co | ncave, convex, none | ): flat               | Slope: 0.0     | %/°           |  |  |
| Subregion (LRR or MLRA): LRR N Lat.:                                       | 37.67747         | Long.:              | -85.97126             | Datum          | : WGS 1984    |  |  |
| Soil Map Unit Name: Mv - Melvin silt loam                                  |                  |                     | NWI classification:   | N/A            |               |  |  |
| Are climatic/hydrologic conditions on the site typical for this time of ye | ear? Yes 🖲       | No 🔿 🛛 (If no, exp  | lain in Remarks.)     | -              |               |  |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant                     | ly disturbed?    | Are "Normal Circ    | cumstances" present?  | Yes 🖲          | No $\bigcirc$ |  |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p                     | roblematic?      | (If needed, expl    | ain any answers in Re | emarks.)       |               |  |  |
| Summary of Findings Attach site man showing s                              | ampling pa       | int locations       | trancasta imna        | rtant faat     | urac ata      |  |  |

| Summary of Findings - Attach site map sho | wing sampling point locations, transects, important reatures, etc. |
|---|--|
|   |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes •<br>Yes •<br>Yes • | No ()<br>No ()<br>No () | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $ullet$ |
|---|-------------------------|-------------------------|---------------------------------------|---------------------------|
| Remarks:  |                         |                         |                                       |                           |
| Wetland 13  |                         |                         |                                       |                           |
|   |                         |                         |                                       |                           |
|   |                         |                         |                                       |                           |

| Wetland Hydrology Indicators:           |   | Secondary Indicators (minimum of two required)                   |
|---|---|--|
| Primary Indicators (minimum of one r    | required; check all that apply)                 | Surface Soil Cracks (B6)   |
| Surface Water (A1)                      | True Aquatic Plants (B14)                       | Sparsely Vegetated Concave Surface (B8)                          |
| High Water Table (A2)                   | Hydrogen Sulfide Odor (C1)                      | Drainage Patterns (B10)  |
| Saturation (A3)                         | Oxidized Rhizospheres along Living              | Roots (C3) Moss Trim Lines (B16)                                 |
| Water Marks (B1)                        | Presence of Reduced Iron (C4)                   | Dry Season Water Table (C2)                                      |
| Sediment Deposits (B2)                  | Recent Iron Reduction in Tilled Soil            | s (C6) Crayfish Burrows (C8)                                     |
| Drift deposits (B3)                     | Thin Muck Surface (C7)                          | Saturation Visible on Aerial Imagery (C9)                        |
| Algal Mat or Crust (B4)                 | Other (Explain in Remarks)                      | Stunted or Stressed Plants (D1)                                  |
| Iron Deposits (B5)                      |   | Geomorphic Position (D2)   |
| Inundation Visible on Aerial Imagery (B | 37)   | Shallow Aquitard (D3)  |
| ✓ Water-Stained Leaves (B9)             |   | Microtopographic Relief (D4)                                     |
| Aquatic Fauna (B13)                     |   | FAC-neutral Test (D5)  |
| Field Observations:                     |   |  |
| Surface Water Present? Yes •            | No O Depth (inches): 4                          |  |
| Water Table Present? Yes O              | No   Depth (inches):                            | <b>x</b>   |
| Saturation Present? Yes $\bigcirc$      | No  Depth (inches):                             | Wetland Hydrology Present? Yes $ullet$ No $igodoldsymbol{	imes}$ |
| Describe Recorded Data (stream gauge    | e, monitoring well, aerial photos, previous ins | pections), if available:   |
|   |   |  |
| Remarks:                                |   |  |
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| Absolute       Fold       Borniance Test worksheet:         1. Acc nature       50       25.5%       FAC         2. Cettis benchance       20       27.2%       FAC         3. Unrus americana       20       27.2%       FAC         4.       0       0.0%       Percent of dominant Species       3       (0)         5.       0       0.0%       Percent of dominant Species       3       (0)         6.       0       0.0%       Percent of dominant Species       100.0%       (4)         7.       0       0.0%       Percent of dominant Species       100.0%       (4)         8.       0       0.0%       Percent of dominant Species       100.0%       (4)         8.       0       0.0%       FAC species       0       100.0%       (4)         9.       7.       0       0.0%       FAC species       0       x 4 + 0         1.       0       0.0%       FAC species       0       x 4 + 0         1.       0       0.0%       FAC species       0       x 4 + 0         1.       0       0.0%       FAC species       0       x 4 + 2         1.       0       0.0%       FAC sp   | · · · · · · · · · · · · · · · · · · ·                      |    | Dominant      | Sampling Point: D-026   |
|---|--|----|---------------|---|
| Issue and source         50         Ø 5.456         FAC         Product of Lorenze Space         3         (A)           2. Cettil becksta         20         Ø 2735         FACW         Issue code, FACO of FAC         3         (A)           4.         0         0.00%         Ø 2735         FACW         Issue code, FACO of FAC         3         (A)           4.         0         0.00%         Ø 20%         FACW         Issue code, FACO of FAC         3         (A)           6.         0         0.00%         FAC         Species Arcoss At Status         3         (B)           7.         0         0.00%         FAC         Species Arcoss At Status         100.02%         (A)           2.         0         0.00%         FAC         Species Arcoss At Status         3         (A)           3.         0         0.00%         FAC         Species Arcoss At Status         0  |  |    | Renoti at.    |   |
| 2. Getts bacdata       21       ✓ 22.7%       FACW         3. Umsa menckana       0       ✓ 22.7%       FACW         5.       0       0.0%       Percent of continuent Species         6.       0       0.0%       Percent of continuent Species         7.       0       0.0%       Percent of continuent Species         8.       0       0.0%       Percent of continuent Species         8.       0       0.0%       Percent of continuent Species         9.       0.0%       Percent of continuent Species       0.0%         1.       0       0.0%       Percent of continuent Species       0.0%         1.       0       0.0%       Percent of continuent Species       0.0%       1.1         2.       0       0.0%       Percent of continuent Species       0.0%       1.1         2.       0       0.0%       Percent of continuent Species       0.0%       1.1         2.       0       0.0%       Percent of continuent Species       0.0%       1.1         2.       0       0.0%       Percent of continuent Species       0.0%       1.1         2.       0       0.0%       Percent of continuent Species       0.0%       1.1 <t< th=""><th>Tree Stratum (Plot size:)</th><th></th><th></th><th>Number of Dominant Species</th></t<>   | Tree Stratum (Plot size:)                                  |    |               | Number of Dominant Species  |
| 200       22.2%       FACW       Total Muncher of Dominant Species       3       (6)         4       0       0.0%       Personance information in Species       3       (6)         6       0.0%       Personance information in Species       100.00%       Personance information in Species       100.00%       Personance information in Species       100.00%       Personance information in Species       0       0.00%       Personance information information in Species       0       0.00%       Personance information informatin information informatinformation informatinfo   | 1. Acer rubrum   |    |               |   |
| 3. Ultus americana       20       22.5%       Percent of dominant Species   | 2. Celtis laevigata  | 20 |               |   |
| 5       0       0.0%       Percent of dominant spocies       100.0%       (vii)         6       0       0.0%       Prevalence Index worksheet:       100.0%       100.0%       Prevalence Index worksheet:         8       0       0.0%       Prevalence Index worksheet:       101.% Score of: Multiply by:         9.0       = 0.0%       FAC species       0       x 1 = 0         9.0       = 0.0%       FAC species       50       x 2 = 80         2       0       0.0%       FAC species       50       x 3 = 150         7       0       0.0%       FAC species       0       x 4 = 0         1       0       0.0%       Prevalence Index worksheet:       0       x 4 = 0         5       0       0.0%       Prevalence Index is 10       2.55c       Prevalence Index is 10       2.55c         7       0       0.0%       Prevalence Index is 50%       Prevalence Index is 50%       Prevalence Index is 50%       Prevalence Index is 50%         10       0       0.0%       Prevalence Index is 50%       Prevalence   | 3. Ulmus americana   |    |               |   |
| 0       0.0%       That Are OBL, FACW, of FAC:       100.0%       (M3)         7.       0       0.0%       Prevalence index worksheet:       0         8.       0       0.0%       FAC species       0       1.         9.       = Total Cover       FAC species       0       1.       0         1.       0       0.0%       FAC species       0       1.4       0         2.       0       0.0%       FAC species       0       1.4       0         2.       0       0.0%       FAC species       0       1.4       0         4.       0       0.0%       FAC species       0       1.4       0         5.       0       0.0%       Prevalence index variance traits is 00       (A)       2.30       (B)         7.       0       0.0%       Prevalence index is 5.30       (B)       (C)  | 4  |    |               |   |
| 6.       0       0.0%       Providence Index worksheet:         8.       0       0.0%       Total % Cover of:       Multiply by:         9.       0       0.0%       PROVidence Index worksheet:       Total % Cover of:       Multiply by:         9.       0       0.0%       PROV species       0       X 2 = 80         1.       0       0.0%       PROV species       0       X 2 = 80         3.       0       0.0%       PROV species       0       X 3 = 150         3.       0       0.0%       PROV species       0       X 5 = 0         4.       0       0.0%       Providence Index Worksheet:       9       X 5 = 0         5.       0       0.0%       Providence Index Worksheet:       9       X 5 = 0         6.       0       0.0%       Providence Index Worksheet:       9       X 5 = 0         9.       0.0%       Providence Index Worksheet:       9       X 5 = 0       (P)         10.       0.0%       Providence Index Worksheet:       9       (P)       (P)         10.       0       0.0%       Providence Index Worksheet:       (P)       (P)         11.       0       0.0%       Providesuptit  | 5  |    |               |   |
| 8.       0       0.00%       Total % Cover of:       Multiply by:         sapinor Septing Yshrub Stratum       (Plot size:       0       0.0%       FAC species       0       x 1 +       0         1.       0       0.0%       FAC species       0       x 1 +       0         3.       0       0.0%       FAC species       0       x 4 +       0         4.       0       0.0%       FAC species       0 x 4 +       0         5.       0       0.0%       FAC species       0 x 4 +       0         6.       0       0.0%       FAC species       0 x 4 +       0         7.       0       0.0%       Prevalence Index # 5 = 0.0       (A) 230       (B)         8.       0       0.0%       Prevalence Index # 5 = 0.0       (A) 230       (B)         9.       0       0.0%       Worphological Adpentions (Fortations):       (B)       (B)       (C)       (C)         9.       0       0.0%       Worphological Adpentions (Fortations):       (C)       (C) <td< th=""><th>6</th><th></th><th>0.0%</th><th></th></td<>  | 6  |    | 0.0%          |   |
| 0       = Total Cover       08L species       0       x 1 =       0         1.       0       0.0%       FAC species       0       x 2 =       80         2.       0       0.0%       FAC species       0       x 4 =       0         3.       0       0.0%       FAC species       0       x 4 =       0         4.       0       0.0%       FAC species       0       x 4 =       0         5.       0       0.0%       FAC species       0       x 4 =       0         6.       0       0.0%       FAC species       0       x 4 =       0         9.       0       0.0%       FAC species       0       x 4 =       0         9.       0       0.0%       FAC species       0       x 4 =       0         9.       0       0.0%       FAC species       5.0       X 4 =       0         10.       0       0.0%       FAC species       5.0       X 4 =       0         11.       0       0.0%       FAC species       5.0       X 4 =       0         12.       0       0.0%       FAC species       5.0       X 4 =       0   | 7  |    | 0.0%          |   |
| Saeling/Shrub Stratum       (Pol Sael         1       0       0.0%         2       0       0.0%         3       0       0.0%         4       0       0.0%         5       0       0.0%         6       0.0%       FRCU species       0       x 5 +       0         6       0.0%       UPL species       0       x 5 +       0         6       0       0.0%       UPL species       0       x 5 +       0         6       0       0.0%       UPL species       0       x 5 +       0         7       0       0.0%       UPL species       0       x 5 +       0         9       0       0.0%       Hydrophylic Vegatation Indicators       1   | 8  |    |               |   |
| 1       0       0.0%       FAC species       0       1.0%         2       0       0.0%       FAC species       0       x 4 =       0         3       0       0.0%       FAC species       0       x 4 =       0         4       0       0.0%       FAC species       0       x 4 =       0         5       0       0.0%       Colum Total s:       9.0       x 4 =       0         6       0       0.0%       Hydrophytic Vegetation Indicators:       0       0.0%       Hydrophytic Vegetation Indicators:         8       0       0.0%       Indiputed to thydrophytic Vegetation Indicators:       0       0.0%       Indiputed to thydrophytic Vegetation 1       0       0.0%         1       0       0.0%       Indicators of hydrophytic Vegetation 1 (Kordo supporting data to not separate sheet)       0       0.0%         1       0       0.0%       Indicators of hydrophytic Vegetation 1 (Kordo supporting data to not separate sheet)       0       0.0%         1       0       0.0%       Indicators of hydrophytic Vegetation 1 (Kordo supporting data in Remarks or on a separate sheet)       0       0.0%         2       0       0.0%       Indicators of hydrophytic Vegetation Strata:       0       0.0%<  | Sapling-Sapling/Shrub Stratum (Plot size:                  | 90 | = Total Cover |   |
|   |  | ~  | 0.0%          | FACW species $40$ x 2 = $80$  |
| a       a       a       a       b       a       b       c   |  |    |               | <b>FAC speci es</b> <u>50</u> <b>x 3</b> = <u>150</u>   |
| 1       0       0.0%       UPL species       0       x 5 = .0         6.       0       0.0%       Column Totals:       90       (A)   |  |    |               | FACU species $0 \times 4 = 0$   |
| 0       0.0%       Col umn Total s:       90       (A)       230       (B)         6.       0       0.0%       Prevalence Index = IFA =       2.556         7.       0       0.0%       Hydrophytic Vegetation Indicators:       0       2.556         9.       0       0.0%       Mydrophytic Vegetation Indicators:       0       0.0%         10.       0       0.0%       Prevalence Index = Sta > 50%       Prevalence Index = Sta > 1         1.       0       0.0%       Prevalence Index is 53.0       1         2.       0       0.0%       Problematic Hydrophytic Vegetation 1       1         2.       0       0.0%       Problematic Hydrophytic Vegetation 1       1         3.       0       0.0%       Problematic Hydrophytic Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       Problematic Pydrophytic Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       Problematic Pydrophytic Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       Problematic Pydrophytic Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:       Four Vegetation Strata: <th></th> <th></th> <th></th> <th>UPL species x 5 =</th>   |  |    |               | UPL species x 5 =   |
| 0       0.0%       Prevalence Index = B/A =2.556.         7.       0       0.0%         8.       0       0.0%         9.       0       0.0%         10.       0       0.0%         11.       0       0.0%         12.       0       0.0%         1.       0       0.0%         2.       0       0.0%         2.       0       0.0%         2.       0       0.0%         2.       0       0.0%         3.       0       0.0%         4.       0       0.0%         5.       0       0.0%         6.       0       0.0%         7.       0       0.0%         8.       0       0.0%         9.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%         1.       0       0.0%  |  |    |               | Column Totals: 90 (A) 230 (B)   |
| 0       0.%       Intersection 10.00%       Intersection 10.00%         8       0       0.0%       Hydrophytic Vegetation Indicators:         9       0       0.0%       Image: Test of Hydrophytic Vegetation 1         9       0       0.0%       Image: Test of Hydrophytic Vegetation 1         10       0       0.0%       Image: Test of Hydrophytic Vegetation 1         11       0       0.0%       Image: Test of Hydrophytic Vegetation 1         12       0       0.0%       Image: Test of Hydrophytic Vegetation 1         1       0       0.0%       Image: Test of Hydrophytic Vegetation 1         2       0       0.0%       Image: Test of Hydrophytic Vegetation 1         3       0       0.0%       Image: Test of Hydrophytic Vegetation 1         5       0       0.0%       Image: Test of Hydrophytic Vegetation 1         6       0       0.0%       Image: Test of Hydrophytic Vegetation 1         1       0       0.0%       Image: Test of Hydrophytic Vegetation 1         1       0       0.0%       Image: Test of Hydrophytic Vegetation 1         1       0       0.0%       Image: Test of Hydrophytic Vegetation 1         1       0       0.0%       Image: Test of Hydrophytic Vegetation 1  |  |    |               |   |
| -       -       0       0.0%       Hydrophysic Vegetation Indicators:         9.       0       0.0%       Papid Test for Hydrophysic Vegetation         10.       0       0.0%       Dominance Test is > 50%         10.       0       0.0%       Problematic Hydrophysic Vegetation         1.       0       0.0%       Provalence Index is 33.0 <sup>1</sup> 2.       0       0.0%       Problematic Hydrophysic Vegetation <sup>1</sup> (Explain)         3.       0       0.0%       Problematic Hydrophysic Vegetation <sup>1</sup> (Explain)         4.       0       0.0%       Problematic Hydrophysic Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:       Four Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:       Four Vegetation Strata:         1.       0       0.0%       Herb Stratum - Consists of woody plants, excluding vines, 3 in.         1.       0       0.0%       Herb stratum - Consists of woody plants, excluding vines, 32 it (1 m) tall.         2.       0       0.0%       Herb stratum - Consists of woody plants, excluding vines, 32 it tall.         8.       0       0.0%       Herb stratum - Consists of woody plants, excluding woody vines, set tas tall tall.         4.       0   |  |    |               |   |
| 0.       0       0.0%       ✓       ✓       Ø         10.       0       0.0%       ✓       Dominance Test is > 50%         11.       0       0.0%       ✓       Prevalence Index is \$3.0 <sup>1</sup> 11.       0       0.0%       ✓       Prevalence Index is \$3.0 <sup>1</sup> 12.       0       0.0%       ✓       Problematic Hydrophylic Vegetation <sup>1</sup> (Explain)         13.       0       0.0%       ✓       Problematic Hydrophylic Vegetation <sup>1</sup> (Explain)         14.       0       0.0%       ✓       Peroblematic Hydrophylic Vegetation Strata:         7.       0       0.0%       ✓       Definition of Vegetation Strata:         7.       0       0.0%       ✓       Definition of Vegetation Strata:         7.       0       0.0%       ✓       Tree stratum - Consists of woody plants, excluding vines, 3 in.         7.       0       0.0%       ✓       Nody vines - Consists of all bethaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft thall.         8.       0       0.0%       ✓       Nody vines - Consists of all woody vines, approximately 20 trians an 2.8 ft tall.         4.       0       0.0%       Five Vegetation Strata:       Tree- Woody plants, excluding woody vines, approximately 20 t   |  |    |               |   |
| 0       0       0.0%       Image: Solution of the solutis and the solutis of the solutis of the sol |  |    |               |   |
| Shrub Stratum       (Plot size:)       0       = Total Cover       Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)         1.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         3.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         3.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         4.       0       0.0%       Problematic Hydrophytic Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Herb Stratum       Consists of woody plants, excluding vines, 3.8 t (1 m) tail.         2.       0       0.0%       Herb Stratum - Consists of all woody vines, 2.8 t tail.       Not pholematic at present and 3.2 t tail.         3.       0       0.0%       Herb Stratum - Consists of all woody vines, approximately 20 tt (6 m) or more in height and 3.2 t (1 m) tail.         4.       0       0.0%       Herb Stratum - Consists of all woody vines,  |  |    |               |   |
| Shrub Stratum       (Plot size:)       0       0.0%       at a femarks or on a separate sheet)         1.       0       0.0%       1       Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         3.       0       0.0%       Definition of Vegetation 1 (Explain)         4.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Testatum (Plot size:)         7.       0       0.0%       Testatum - Consists of woody plants, excluding vines, 3 in. (7.6 m) or more in diameter at breast heigh (DBH), regardless of size, and all other plants less than 3.28 ft tall.         1.       0       0.0%       Herb Stratum       Consists of size oddy plants, excluding vines, asptroximately 20 ft (fin or more in height.         3.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody plants, excluding vines, less than 3 in DBH and greater than 3.28 ft tall.         4.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody plants, excluding woody vines, approximately 20 ft (in or more in height and 3 in (7.6 cm) or larger in diameter at breast height (DBH).         5.       0       0.0%       Tree -Woody plants, excluding woody vines, approximately 20 ft (in or more in height and 3 in (7.6 cm) or larger in diameter at breast height (DBH).         10.       0.0%       Tree -Woody plants, excl  | 10   |    |               | $\blacksquare \qquad \blacksquare \qquad$ |
| 1       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         3.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         3.       0       0.0%       Problematic Hydrophytic Vegetation 1 (Explain)         4.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:         1.       0       0.0%       Herb Stratum (Plot size:       0         1.       0       0.0%       Herb stratum - Consists of all woody plants, excluding wines, ises than 3 in .DBH and greater than 3.28 ft (1 m) tail.         2.       0       0.0%       Herb stratum - Consists of all woody vines, approximately 20 ft (6 m) or nore in height and 3 in .C & 0.0%         4.       0       0.0%       Five Vegetation Strata:       In theight.         9.       0       0.0%       Stratum - Consists of all woody vines, approximately 20 ft (6 m) or nore in height and 3 in .C & 0.0%       It (6 m) or nore in height and sin .C & 0.0%       Stratum - Cons   | _Shrub Stratum_ (Plot size:)                               |    |               |   |
| 2.       0       0.0%       1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         4.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         3.       0       0.0%       Yess than 3 in. DBH and greater than 3.28 ft (1 m) tail.         2.       0       0.0%       resets of size, and all other plants excluding woody vines, approximately 20 ft (amore in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and 3 in, (7.6 cm) or more in height and in the set than 3 in (7.6 cm) or more in height and less than 3 in. DBH.         3.       0       0.0%       tree woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in (7.6 cm) or more in height and 1 in (7.6 cm) or more in height and 1 in (7.6 cm) or more in height and 1 in (7.6 cm) or more in height and 1 in (7.6 cm or ore in height and 1 in (7.6 cm) or more in height and 1   |  |    |               |   |
| 4.       0       0.0%       be present, unless disturbed or problematic.         5.       0       0.0%       Definition of Vegetation Strata:         6.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of theight.         8.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3.8 ft (1m) tall.         2.       0       0.0%       Vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.         3.       0       0.0%       Woody vines - Consists of all herbaceous (non-woody) plants, excluding vines, 3.28 ft tall.         4.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:   |  |    |               |   |
| 4.       0       0.0%       Definition of Vegetation Strata:         5.       0       0.0%       Four Vegetation Strata:         7.       0       0.0%       (Plot size:  | 3  |    |               |   |
| S.       O       O.0%       Four Vegetation Strata:         7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in.         1.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in.         1.       0       0.0%       Sapling/shrub stratum - Consists of woody plants, excluding vines, ess than 3.28 ft (1 m) tall.         2.       0       0.0%       Woody vines, ess than 3.28 ft (1 m) tall.         4.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         4.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         6.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3.10.76 cm) DBH.         10.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 30 tf (1 o fm) in height.         12.       0       0.0%       Sapling strat  | 4  | 0  | 0.0%          |   |
| 7.       0       0.0%       Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.         1.       0       0.0%       Sapling/shrub stratum - Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.         2.       0       0.0%       Vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.         3.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         4.       0       0.0%       Woody vines - Consists of all woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in height.         5.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) or larger in diameter at breast height (DBH).         10.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) or larger in diameter at breast height (DBH).         11.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 tt (6 m) or more in height and 1 in. (7.6 cm) or larger in height.         12.       0       <  |  | 0  | 0.0%          |   |
| Image: Construction       Image: Constit is is image: Construction <td< th=""><th>6</th><th>0</th><th>0.0%</th><th></th></td<>  | 6  | 0  | 0.0%          |   |
| Herb Stratum       (Plot Size   | 7  | 0  | 0.0%          |   |
| 1.       0       0.0%       wires, iess than 3 in. DBH and greater than 3.28 ft (1 m) tall.         2.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.         3.       0       0.0%       Woody vines - Consists of all woody vines, greater than 3.28 ft tall.         4.       0       0.0%       Woody vines - Consists of all woody vines, greater than 3.28 ft tall.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in (7.6 cm) or larger in diameter at breast height (DBH).         8.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or BH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       0.0%       Shrub stratum - Consists of all woody vines, regardless of size, and woody species, except woody vines, less than approximately 3 tt (1 m) in height.         3.       0       0.0%       0.0%       m) in height.         4.       0       0.0%       m) in height.       Herb stratum - Consists of all woody vines, regardless of height. <th>Herb Stratum (Plot size:)</th> <th>0</th> <th>= Total Cover</th> <th></th>  | Herb Stratum (Plot size:)                                  | 0  | = Total Cover |   |
| 2.       0       0.0%       Herb stratum - Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.         3.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft tall.         4.       0       0.0%       In height.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       If (m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (f (m) or more in height and less than 3 in. (7.6 cm) DBH.         10.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.         11.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous (non-woody vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0% <th>1</th> <th>0</th> <th>0.0%</th> <th></th>   | 1  | 0  | 0.0%          |   |
| 3.       0       0.0%       Woody vines - Consists of all woody vines greater than 3.28 ft in height.         4.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         8.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) of larger in diameter at breast height (DBH).         10.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 30 tt (10 to m) in height.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody         2.       0       0.0%       Moody vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0%       Moody vines, consists of all woody vines, regardless of height.         5.       0       0.0%       M   |  | 0  | 0.0%          |   |
| 4.       0       0.0%       in height.         5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         10.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 to t (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody) plants, including herbaceous (non-woody) vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of size, and woody species, except woody vines, regardless of size, and woody species, except woody vines, regardless of height.         5.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         5.   | 3  | 0  | 0.0%          | regardless of size, and all other plants less than 3.28 ft tall.  |
| 5.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20 tr (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 tr (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         10.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 30 tr (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 30 tr (1 to 6 m) in height.         Woody Vine Stratum (Plot size:       )       0       = Total Cover         1.       0       0.0%       Species, except woody vines, regardless of size, and woody species, except woody vines, regardless of size, and woody species, except woody vines, regardless of height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         4.       0       0.0%       Hydrophytic         0       0.0%       0       0.0%         1.       0       0.0%       Present?   | 4  | 0  | 0.0%          |   |
| 0.       0       0.0%       Five Vegetation Strata:         7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       diameter at breast height (DBH).         9.       0       0.0%       saping stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         10.       0       0.0%       Saping stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       m) in height.         13.       0       0.0%       m) in height.         3.       0       0.0%       m) in height.         4.       0       0.0%       m) in height.         5.       0       0.0%       Hydrophytic Vegetation Present?       Yes No         6.       0       0.0%       Present?       No   | 5  | 0  | 0.0%          |   |
| 7.       0       0.0%       Tree - Woody plants, excluding woody vines, approximately 20         8.       0       0.0%       ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         12.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       Shrub stratum - Consists of size, and woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 th (1 to 6 m) in height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         4.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         5.       0       0.0%       Hydrophytic         0       0.0%       Vegetation         0       0.0%       Present?   | 6  | 0  | 0.0%          | Eive Vegetation Strata:   |
| 8.       0       0.0%       It (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         12.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         Woody Vine Stratum (Plot size:       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         5.       0       0.0%       Hydrophytic         6.       0       0.0%       Present?         9.       0.0%       No   | 7  | 0  | 0.0%          | _   |
| 9.       0       0.0%       Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       than 3 in. (7.6 cm) DBH.         12.       0       0.0%       than 3 in. (7.6 cm) DBH.         12.       0       0.0%       than 3 in. (7.6 cm) DBH.         12.       0       0.0%       than 3 in. (7.6 cm) DBH.         14.       0       0.0%       therb stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         15.       0       0.0%       m) in height.         16.       0       0.0%       woody vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         5.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         6.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         7.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         9.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         9.       0       0.  | 8  | 0  | 0.0%          | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in  |
| 10.       0       0.0%       Saping stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         12.       0       0.0%       shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.         11.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         1.       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         2.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         5.       0       0.0%       Hydrophytic         0       0.0%       Vines, approximately 2 woody vines, regardless of height.         9.       0.0%       No       No  | 9  | 0  | 0.0%          |   |
| 11.       0       0.0%       than 3 in. (7.6 cm) DBH.         12.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         Woody Vine Stratum (Plot size:       0       0.0%       Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         2.       0       0.0%       m) in height.         3.       0       0.0%       m) in height.         4.       0       0.0%       m) in height.         5.       0       0.0%       Hydrophytic         6.       0       0.0%       Vines, regardless of all woody vines, regardless of height.         9       0.0%       0       0.0%         9       0.0%       0       0.0%         9       0.0%       0       0.0%         9       0.0%       0       0.0%         9       0.0%       0       0.0%         9       0.0%       0       0.0%         9       0.0%       0       0         9       0.0%       0       0       0         9       0.0%       0       0   |  | 0  | 0.0%          |   |
| 12.       0       0.0%       Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.         Woody Vine Stratum (Plot size:       0       = Total Cover       Herb stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         1.       0       0.0%       species, except woody vines, less than approximately 3 ft (1 m) in height.         3.       0       0.0%       m) in height.         4.       0       0.0%       woody vines - Consists of all woody vines, regardless of height.         5.       0       0.0%       Hydrophytic Vegetation Present?         6.       0       0.0%       Present?   |  |    | 0.0%          |   |
| Woody Vine Stratum (Plot size:)       0       = Total Cover       Herb stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         1.       0       0.0%       m) in height.         3.       0       0.0%       m) in height.         4.       0       0.0%       height.         5.       0       0.0%       height.         6.       0       0.0%       Present?         Yes (Including herbaceous vines, regardless of all woody vines, regardless of height.       No (Including herbaceous vines, regardless of height.   | 12.  |    | 0.0%          |   |
| 1.       0       0.0%       including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.         2.       0       0.0%       m) in height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         4.       0       0.0%       Hydrophytic         5.       0       0.0%       Hydrophytic         0.       0.0%       Present?       Yes  | Woody Vine Stratum (Plot size:                             | 0  | = Total Cover |   |
| 1.       0       0.0%       species, except woody vines, less than approximately 3 ft (1         2.       0       0.0%       m) in height.         3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         4.       0       0.0%       Hydrophytic         5.       0       0.0%       Hydrophytic         0.       0.0%       Present?       Yes  |  | 0  | 0.0%          | including herbaceous vines, regardless of size, and woody   |
| 3.       0       0.0%       Woody vines - Consists of all woody vines, regardless of height.         4.       0       0.0%       Hydrophytic         5.       0       0.0%       Use the second se   |  |    |               |   |
| 4.     0     0.0%     height.       5.     0     0.0%     Hydrophytic       6.     0     0.0%     Vegetation       0     = Total Cover     Yes < No   |  |    |               |   |
| 0 $0.0%$ $0$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ $0.0%$ <  |  |    |               |   |
| $6. \_ 0 = Total Cover$ $Hydrophytic Vegetation Present? Yes • No \bigcirc$   |  |    |               |   |
| 0 = Total Cover Yes ● No ∪  |  |    |               |   |
|   | 0  |    |               |   |
|   | Remarks: (Include photo numbers here or on a separate shee |    |               |   |

| Profile Descr            | iption: (Describe to    | the depth ne | eded to document                        | the indic    | ator or co        | nfirm the a             | bsence of indicators.)               |                            |
|--------------------------|-------------------------|--------------|---|--------------|-------------------|-------------------------|--------------------------------------|----------------------------|
| Depth                    | Matrix                  |              | Re                                      | dox Featu    |                   |                         |                                      |                            |
| (inches)                 | Color (moist)           | %            | Color (moist)                           | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>        | Texture                              | Remarks                    |
| 0-20                     | 10YR 3/1                |              | 5YR 4/6                                 | 20           | C                 | M                       | Loam                                 |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   | -            |                   |                         |                                      |                            |
|                          | p                       |              |   |              |                   |                         |                                      |                            |
|                          | ·                       |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
| <sup>1</sup> Type: C=Con | centration. D=Depletio  | n. RM=Reduce | ed Matrix, CS=Covere                    | ed or Coate  | d Sand Gra        | ains <sup>2</sup> Locat | ion: PL=Pore Lining. M=Ma            | atrix                      |
| Hydric Soil I            |                         |              | • |              |                   |                         |                                      |                            |
| Histosol (               |                         |              | Dark Surface (                          | S7)          |                   |                         | Indicators for Proble                | -                          |
|                          | pedon (A2)              |              | Polyvalue Belov                         | •            | (MI RA            | 147,148)                | 2 cm Muck (A10)                      | (MLRA 147)                 |
| Black Hist               |                         |              | Thin Dark Surfa                         |              |                   |                         | Coast Prairie Redo                   | x (A16)                    |
|                          | Sulfide (A4)            |              | Loamy Gleyed                            |              |                   | ,                       | (MLRA 147,148)                       |                            |
|                          | Layers (A5)             |              | Depleted Matrix                         |              |                   |                         | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)            |
|                          | k (A10) (LRR N)         |              | Redox Dark Su                           |              |                   |                         | Very Shallow Dark                    | Surface (TE12)             |
| _                        | Below Dark Surface (A   | 11)          | Depleted Dark                           |              | 7)                |                         |                                      |                            |
|                          | k Surface (A12)         | 11)          | Redox Depress                           |              | ,                 |                         | Other (Explain in I                  | Remarks)                   |
|                          | ick Mineral (S1) (LRR N | I            | Iron-Manganes                           |              | F12) (LRR         | Ν.                      |                                      |                            |
| MLRA 147                 | 7, 148)                 | d,           | MLRA 136)                               |              |                   |                         |                                      |                            |
|                          | eyed Matrix (S4)        |              |   |              |                   |                         | <sup>3</sup> Indicators of I         | nydrophytic vegetation and |
| Sandy Re                 |                         |              | Piedmont Floor                          |              |                   |                         | wetland hyd                          | rology must be present,    |
| Stripped I               | Matrix (S6)             |              | Red Parent Ma                           | terial (F21) | (MLRA 12          | 7, 147)                 | unless dis                           | turbed or problematic.     |
| Restrictive L            | ayer (if observed):     |              |   |              |                   |                         |                                      |                            |
| Type:                    |                         |              |   |              |                   |                         |                                      |                            |
| Depth (inc               | hes):                   |              |   |              |                   |                         | Hydric Soil Present?                 | Yes 🔍 No 🔾                 |
| Remarks:                 |                         |              |   |              |                   |                         |                                      |                            |
| Kennarks.                |                         |              |   |              |                   |                         |                                      |                            |
|                          |                         |              |   |              |                   |                         |                                      |                            |
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|                          |                         |              |   |              |                   |                         |                                      |                            |
| l                        |                         |              |   |              |                   |                         |                                      |                            |

| Project/Site: Telesto Solar Project                            | City/County:                              | Cecilia/Hardin       | Samp  | Sampling Date: 2 |         |            |
|--|---|----------------------|---|------------------|---------|------------|
| Applicant/Owner: 7x Energy                                     |   | State: KY            | Sampling Po   | oint:            | D-      | 027        |
| Investigator(s): J. Stelly and C. Hoffmann                     | Section, Tow                              | nship, Range: S      | т   |                  | R       |            |
| Landform (hillslope, terrace, etc.):                           | Local relief (co                          | ncave, convex, none) | ):  | Slope:           | 0.0     | %/°        |
| Subregion (LRR or MLRA): LRR N Lat.:                           | 37.67747                                  | Long.:               | -85.97126   |                  | Datum:  | WGS 1984   |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes. |   |                      | NWI classification  | n: <u>N/A</u>    |         |            |
|  | ear? Yes<br>ly disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>cumstances" presen<br>ain any answers in F |                  |         | No 〇       |
| Summary of Findings - Attach site map showing s                | ampling po                                | oint locations, t    | transects, imp  | ortan            | t featu | ıres, etc. |

| Hydrophytic Vegetation Present? | $_{ m Yes}$ $\bigcirc$ | No 🖲 |                     |                              |
|---------------------------------|------------------------|------|---------------------|------------------------------|
| Hydric Soil Present?            | $_{ m Yes}$ $\bigcirc$ | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\bigcirc$ |
| Wetland Hydrology Present?      | $_{\rm Yes} \bigcirc$  | No 🖲 | within a Wetland?   |                              |
| Remarks:                        |                        |      |                     |                              |
|                                 |                        |      |                     |                              |
|                                 |                        |      |                     |                              |
|                                 |                        |      |                     |                              |

| Wetland Hydrology Indicato                         | ors:                    |       |         |   |                | Secondary Indicators (minimum of two required) |
|--|-------------------------|-------|---------|---|----------------|--|
| Primary Indicators (minimu                         | im of one               | requi | ired; d | check all that apply)                         |                | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                         |       |         | True Aquatic Plants (B14)                     |                | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                         |       |         | Hydrogen Sulfide Odor (C1)                    |                | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                         |       |         | Oxidized Rhizospheres along Living Roots      | s (C3)         | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                         |       |         | Presence of Reduced Iron (C4)                 |                | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                         |       |         | Recent Iron Reduction in Tilled Soils (C6)    | )              | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                         |       |         | Thin Muck Surface (C7)                        |                | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                         |       |         | Other (Explain in Remarks)                    |                | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                         |       |         |   |                | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | l Imagery (             | B7)   |         |   |                | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          |                         |       |         |   |                | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                         |       |         |   |                | FAC-neutral Test (D5)                          |
| Field Observations:                                | $\sim$                  |       | $\sim$  |   |                |  |
| Surface Water Present?                             | Yes $\bigcirc$          | No    | $\odot$ | Depth (inches):                               |                |  |
|  | $_{\rm Yes} \bigcirc$   | No    | ullet   | Depth (inches):                               |                | rology Present? Yes 🔿 No 🖲                     |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes}$ $\bigcirc$ | No    | ullet   | N Depth (inches):                             | Vetland Hydr   | rology Present? Yes 🔾 No 🖲                     |
|  | ream gaug               | je, m | onito   | ring well, aerial photos, previous inspection | ons), if avail | able:  |
|  |                         |       |         |   |                |  |
| Remarks:   |                         |       |         |   |                |  |
|  |                         |       |         |   |                |  |
|  |                         |       |         |   |                |  |
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|  |                         |       |         |   |                |  |
|  |                         |       |         |   |                |  |
|  |                         |       |         |   |                |  |

|  |          | Dominant<br>Species? |           |           | Sampling Point: D-027  |  |  |
|--|----------|----------------------|-----------|-----------|--|--|--|
|  | Absolute | Re                   | .Strat.   | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                      |           | Status    | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 50       |                      | 58.8%     | FACU      | That are OBL, FACW, or FAC:(A)   |  |  |
| 2. Celtis occidentalis                                     |          |                      | 35.3%     | FACU      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          |                      | 5.9%      | FACW      | Species Across All Strata: <u>2</u> (B)  |  |  |
| 4  |          |                      | 0.0%      |           | Percent of dominant Species  |  |  |
| 5  |          | <u> </u>             | 0.0%      |           | That Are OBL, FACW, or FAC:(A/B)   |  |  |
| 6  |          |                      | 0.0%      |           |  |  |  |
| 7  | _        | <u> </u>             | 0.0%      |           | Prevalence Index worksheet:  |  |  |
| 8  |          | <br>                 | 0.0%      |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = 10                 | tal Cover |           | OBL species <u>0</u> x 1 = <u>0</u>  |  |  |
| 1  |          |                      | 0.0%      |           | FACW species $5 \times 2 = 10$   |  |  |
| 2  |          |                      | 0.0%      |           | FAC species $0 \times 3 = 0$   |  |  |
| 3  |          |                      | 0.0%      |           | FACU species $80 \times 4 = 320$   |  |  |
| 4  | 0        |                      | 0.0%      |           | UPL species x 5 =  |  |  |
| 5  | 0        |                      | 0.0%      |           | Column Totals: <u>85</u> (A) <u>330</u> (B)  |  |  |
| 6  | 0        |                      | 0.0%      |           | Prevalence Index = $B/A = 3.882$   |  |  |
| 7  | 0        |                      | 0.0%      |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  |          |                      | 0.0%      |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  | -        |                      | 0.0%      |           | $\Box \text{ Dominance Test is } 50\%$   |  |  |
| 10   | 0        |                      | 0.0%      |           | $\square \text{ Prevalence Index is } 3.0^{-1}$  |  |  |
| Shrub Stratum_ (Plot size:)                                |          | = To                 | tal Cover | r         | $\square \text{ Morphological Adaptations } ^{1} \text{ (Provide supporting})$   |  |  |
| 1,   | 0        |                      | 0.0%      |           | data in Remarks or on a separate sheet)  |  |  |
| 2  | 0        |                      | 0.0%      |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |          |                      | 0.0%      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  |          |                      | 0.0%      |           | be present, unless disturbed or problematic.   |  |  |
| 5  |          |                      | 0.0%      |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0        |                      | 0.0%      |           | Four Vegetation Strata:  |  |  |
| 7.   | 0        |                      | 0.0%      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = To                 | tal Cover |           | of height.   |  |  |
|  | 0        |                      | 0.0%      |           | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 12   | 0        |                      | 0.0%      |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 3  | 0        |                      | 0.0%      |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0        | $\square$            | 0.0%      | ·         | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 5  | 0        |                      | 0.0%      |           | in height.   |  |  |
| 6  | 0        |                      | 0.0%      |           | Fire Manadation Charles  |  |  |
| 7.   | 0        |                      | 0.0%      |           | Five Vegetation Strata:  |  |  |
| 8.   | 0        |                      | 0.0%      |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |  |  |
| 9  | 0        |                      | 0.0%      |           | diameter at breast height (DBH).   |  |  |
| 10   | 0        |                      | 0.0%      |           | Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less            |  |  |
| 11   |          |                      | 0.0%      |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12.  | 0        |                      | 0.0%      |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
| Woody Vine Stratum (Plot size:)                            | 0        | = To                 | tal Cover | r         | vines, approximately 3 to 20 ft (1 to 6 m) in height.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,             |  |  |
|  | 0        |                      | 0.0%      |           | including herbaceous vines, regardless of size, and woody  |  |  |
| 1<br>2   | 0        |                      | 0.0%      |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |  |  |
|  |          |                      | 0.0%      |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 3  |          |                      | 0.0%      |           | height.  |  |  |
| 4<br>5   | 0        |                      | 0.0%      |           |  |  |  |
| 5<br>6   | 0        |                      | 0.0%      |           | Hydrophytic<br>Vegetation  |  |  |
| 0  | 0        |                      | tal Cove  | r         | Present? Yes O No O  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |          |                      |           |           | l  |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Desci            | ription: (Describe                     | to the depth   | needed to document     | the indic    | ator or coi  | nfirm the a            | absence of indicators.)            |  |
|--------------------------|--|----------------|------------------------|--------------|--------------|------------------------|------------------------------------|--|
| Depth                    | Matr                                   |                |                        | dox Featu    |              |                        |                                    |  |
| (inches)                 | Color (moist                           |                | Color (moist)          | %            | Tvpe         | Loc <sup>2</sup>       | Texture                            | Remarks  |
| 0-21                     | 10YR 3/1                               | 100            |                        |              |              |                        | Loam                               |  |
|                          |  |                |                        |              |              |                        |                                    |  |
| -                        |  |                |                        |              |              |                        |                                    |  |
| p                        |  |                |                        |              |              |                        |                                    |  |
|                          | u                                      |                |                        |              |              |                        |                                    |  |
|                          | . <u> </u>                             |                |                        |              |              |                        |                                    | ,  |
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|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    | ,  |
| <sup>1</sup> Type: C=Cor | centration. D=Depl                     | etion. RM=Redu | uced Matrix, CS=Covere | ed or Coate  | d Sand Gra   | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=N          | latrix   |
| Hydric Soil              | Indicators:                            |                |                        |              |              |                        | Indicators for Probl               | ematic Hydric Soils <sup>3</sup> :                     |
| Histosol (               | (A1)                                   |                | Dark Surface (         | S7)          |              |                        | 2 cm Muck (A10)                    | -  |
|                          | pedon (A2)                             |                | Polyvalue Belov        |              |              |                        | Coast Prairie Red                  |  |
| Black His                |  |                | Thin Dark Surfa        |              |              | 48)                    | (MLRA 147,148)                     |  |
|                          | n Sulfide (A4)<br>Layers (A5)          |                | Loamy Gleyed           |              |              |                        | Piedmont Floodp<br>(MLRA 136, 147) |  |
|                          | ck (A10) (LRR N)                       |                | Redox Dark Su          |              |              |                        |                                    |  |
| _                        |  | . (A11)        | Depleted Dark          |              | 7)           |                        | Very Shallow Dar                   |  |
|                          | Below Dark Surface<br>rk Surface (A12) | e (ATT)        | Redox Depress          |              |              |                        | Other (Explain in                  | Remarks)   |
|                          | . ,                                    |                |                        |              | F12) (I RR I | N.                     |                                    |  |
| MLRA 14                  | uck Mineral (S1) (LF<br>7, 148)        | KR N,          | MLRA 136)              | 0 11103505 ( |              | • /                    |                                    |  |
| Sandy Gl                 | eyed Matrix (S4)                       |                | Umbric Surface         | e (F13) (ML  | RA 136, 12   | 2)                     | 2                                  |  |
| Sandy Re                 |  |                | Piedmont Floo          | dplain Soils | (F19) (MLF   | RA 148)                | <sup>3</sup> Indicators of         | hydrophytic vegetation and<br>drology must be present, |
|                          | Matrix (S6)                            |                | Red Parent Ma          | terial (F21) | (MLRA 127    | 7, 147)                |                                    | sturbed or problematic.                                |
| Postrictivo I            | ayer (if observed                      | n.             |                        |              |              |                        |                                    |  |
| Type:                    | ayer (il observed                      | Ŋ.             |                        |              |              |                        |                                    |  |
| ••••                     | :hes):                                 |                |                        |              |              |                        | Hydric Soil Present?               | Yes 🔾 No 🖲   |
|                          |  |                |                        |              |              |                        |                                    |  |
| Remarks:                 |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
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|                          |  |                |                        |              |              |                        |                                    |  |
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|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |
|                          |  |                |                        |              |              |                        |                                    |  |

| Project/Site: Telesto Solar Project        | City/County: (                                 | Cecilia/Hardin     | Sampli  | ng Date: 23-Feb-21 |          |  |
|--|--|--------------------|---|--------------------|----------|--|
| Applicant/Owner: 7x Energy                 |  | State: KY          | Sampling Poi  | int: D-0           | 028      |  |
| Investigator(s): J. Stelly and C. Hoffmann | Section, Towns                                 | hip, Range: S      | т   | R                  |          |  |
| Landform (hillslope, terrace, etc.): Flat  | Local relief (cond                             | ave, convex, none) | : flat  | Slope: 0.0         | %/°      |  |
| Subregion (LRR or MLRA): LRR N Lat.:       | 37.68294                                       | Long.:             | -85.97423   | Datum:             | WGS 1984 |  |
| Soil Map Unit Name: Mv - Melvin silt loam  |  |                    | NWI classification:   | PFO1A              |          |  |
|  | ear? Yes • N<br>tly disturbed?<br>problematic? | Are "Normal Circ   | lain in Remarks.)<br>umstances" present?<br>iin any answers in Re | •                  | 10 🔾     |  |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No   |                                       |                           |
|---------------------------------|-------|------|---------------------------------------|---------------------------|
| Hydric Soil Present?            | Yes 🖲 | No   | Is the Sampled Area within a Wetland? | Yes $\odot$ No $\bigcirc$ |
| Wetland Hydrology Present?      | Yes 🖲 | No O | within a wettand:                     |                           |
| Remarks:                        |       |      |                                       |                           |
| Wet-14                          |       |      |                                       |                           |
|                                 |       |      |                                       |                           |
|                                 |       |      |                                       |                           |

| Wetland Hydrology Indicate                                | ors:                    |             |   | Secondary Indicators (minimum of two required) |
|---|-------------------------|-------------|---|--|
| Primary Indicators (minimu                                | um of one r             | required; o | check all that apply)                           | Surface Soil Cracks (B6)                       |
| ✓ Surface Water (A1)                                      |                         |             | True Aquatic Plants (B14)                       | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                         |             | Hydrogen Sulfide Odor (C1)                      | Drainage Patterns (B10)                        |
| Saturation (A3)   |                         |             | ✓ Oxidized Rhizospheres along Living Roots (C3) | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                         |             | Presence of Reduced Iron (C4)                   | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                         |             | Recent Iron Reduction in Tilled Soils (C6)      | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                       |                         |             | Thin Muck Surface (C7)                          | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                         |             | Other (Explain in Remarks)                      | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                         |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | al Imagery (E           | 37)         |   | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)                               | )                       |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                         |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                                       | 0                       | 0           |   |  |
| Surface Water Present?                                    | Yes 🖲                   | No 🔿        | Depth (inches):4                                |  |
| Water Table Present?                                      | $_{\sf Yes}$ $\bigcirc$ | No 💿        | Depth (inches):                                 |  |
|   |                         |             |   |  |
| Saturation Present?<br>(includes capillary fringe)        | $_{\rm Yes}$ $\bigcirc$ | No 🖲        | Depth (inches): Wetland                         | d Hydrology Present? Yes 🖲 No 🔾                |
| (includes capillary fringe)                               |                         |             | Wetland   |  |
| (includes capillary fringe)                               |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)                               |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |             | Depth (inches):                                 |  |

| · · · · · · · · · · · · · · · · · · ·                      |          | Dominant      |           | Sampling Point: D-028   |
|--|----------|---------------|-----------|---|
|  | Absolute | non.ou au     | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                  | % Cover  |               | Status    | Number of Dominant Species  |
| 1. Acer rubrum   | 50       | 55.6%         | FAC       | That are OBL, FACW, or FAC: <u>3</u> (A)  |
| 2. Celtis laevigata  | 20       | 22.2%         | FACW      | Total Number of Dominant  |
| 3. Ulmus americana   |          | 22.2%         | FACW      | Species Across All Strata: <u>3</u> (B)   |
| 4  | -        | 0.0%          |           | Demont of dominant Crasics  |
| 5  |          | 0.0%          |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |
| 6  |          | 0.0%          |           |   |
| 7  |          | 0.0%          |           | Prevalence Index worksheet:   |
| 8  |          | 0.0%          |           | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = Total Cover |           | OBL species $0 \times 1 = 0$  |
| 1  |          | 0.0%          |           | FACW species40 x 2 =80  |
| 2  |          | 0.0%          |           | <b>FAC species x 3</b> =50  |
|  |          | 0.0%          |           | FACU species $0 \times 4 = 0$   |
| 3  |          | 0.0%          |           | UPL species x 5 =   |
| 5  |          | 0.0%          |           | Column Totals: (A) (B)  |
| 6  |          | 0.0%          |           |   |
|  |          | 0.0%          |           | Prevalence Index = B/A =2.556   |
| 7  |          | 0.0%          |           | Hydrophytic Vegetation Indicators:  |
| 8  |          | 0.0%          |           | Rapid Test for Hydrophytic Vegetation   |
|  |          | 0.0%          |           | ✓ Dominance Test is > 50%   |
| 10   |          | = Total Cover |           | <b>V</b> Prevalence Index is $\leq$ 3.0 <sup>1</sup>  |
| Shrub Stratum (Plot size:)                                 |          | _             |           | Morphological Adaptations <sup>1</sup> (Provide supporting  |
| 1  |          | 0.0%          |           | data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                        |
| 2  |          | 0.0%          |           |   |
| 3  |          | 0.0%          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.           |
| 4  |          | 0.0%          |           |   |
| 5  |          | 0.0%          |           | Definition of Vegetation Strata:  |
| 6  | 0        | 0.0%          |           | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                  |
| 7  | 0        | 0.0%          |           | (7.6 cm) or more in diameter at breast height (DBH), regardless   |
| Herb Stratum <sup>(Plot size:</sup> )                      | 0        | = Total Cover |           | of height.  |
| 1  | 0        | 0.0%          |           | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2  | 0        | 0.0%          |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 3  | 0        | 0.0%          |           | regardless of size, and all other plants less than 3.28 ft tall.  |
| 4  | 0        | 0.0%          |           | Woody vines – Consists of all woody vines greater than 3.28 ft in height.   |
| 5  | 0        | 0.0%          |           | in neight.  |
| 6  | 0        | 0.0%          |           | Five Vegetation Strata:   |
| 7  | 0        | 0.0%          |           | Tree - Woody plants, excluding woody vines, approximately 20  |
| 8  | 0        | 0.0%          |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in  |
| 9  | 0        | 0.0%          |           | diameter at breast height (DBH).  |
| 10   | 0        | 0.0%          |           | Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less     |
| 11   | 0        | 0.0%          |           | than 3 in. (7.6 cm) DBH.  |
| 12   | 0        | 0.0%          |           | Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.             |
| Woody Vine Stratum (Plot size:)                            | 0        | = Total Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 1  | 0        | 0.0%          |           | including herbaceous vines, regardless of size, and woody   |
| 2.   | 0        | 0.0%          |           | species, except woody vines, less than approximately 3 ft (1 m) in height.  |
| 3  |          | 0.0%          |           | Woody vines – Consists of all woody vines, regardless of  |
| 4  |          | 0.0%          |           | height.   |
| 5  | 0        | 0.0%          |           |   |
|  | 0        | 0.0%          |           | Hydrophytic<br>Vegetation   |
| 6  | 0        | = Total Cover |           | Present? Yes No   |
| Remarks: (Include photo numbers here or on a separate shee |          |               |           | 1   |

| Profile Description: (Describe to the              | depth needed   | o documen     | t the indica  | ator or co        | onfirm the a            | bsence of indicators.)               |                            |
|--|----------------|---------------|---------------|-------------------|-------------------------|--------------------------------------|----------------------------|
| Depth Matrix                                       |                | Re            | dox Featu     |                   |                         |                                      |                            |
| (inches)Color (moist)                              |                | or (moist)    | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>        | Texture                              | Remarks                    |
| 0-21 10YR 3/1 80                                   | ) 5YR          | 4/6           | 20            | C                 | M                       | Loam                                 |                            |
|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
|  |                | -             |               |                   |                         | p                                    |                            |
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|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
| <sup>1</sup> Type: C=Concentration. D=Depletion. R | M=Reduced Matr | ix, CS=Cover  | ed or Coate   | d Sand Gra        | ains <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma           | atrix                      |
| Hydric Soil Indicators:                            |                | ,             |               |                   |                         |                                      |                            |
| Histosol (A1)                                      |                | ark Surface ( | (\$7)         |                   |                         | Indicators for Proble                | -                          |
| Histic Epipedon (A2)                               |                | olyvalue Belo |               | 58) (MI RA        | 147 148)                | 2 cm Muck (A10)                      | (MLRA 147)                 |
| Black Histic (A3)                                  | _              | hin Dark Surf |               |                   |                         | Coast Prairie Redo                   | ox (A16)                   |
| Hydrogen Sulfide (A4)                              |                | pamy Gleyed   |               | ,                 | ,                       | (MLRA 147,148)                       |                            |
| Stratified Layers (A5)                             |                | epleted Matri |               |                   |                         | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)            |
| 2 cm Muck (A10) (LRR N)                            |                | edox Dark Su  |               |                   |                         | Very Shallow Dark                    | K Surface (TE12)           |
| Depleted Below Dark Surface (A11)                  |                | epleted Dark  |               | )                 |                         |                                      |                            |
| Thick Dark Surface (A12)                           |                | edox Depress  |               | /                 |                         | Other (Explain in                    | Remarks)                   |
| Sandy Muck Mineral (S1) (LRR N,                    |                | on-Manganes   |               | -<br>12) (LRR     | N.                      |                                      |                            |
| MLRA 147, 148)                                     | N              | ILRA 136)     |               |                   |                         |                                      |                            |
| Sandy Gleyed Matrix (S4)                           |                | mbric Surfac  |               |                   |                         | <sup>3</sup> Indicators of           | hydrophytic vegetation and |
| Sandy Redox (S5)                                   |                | iedmont Floo  |               |                   |                         | wetland hyd                          | Irology must be present,   |
| Stripped Matrix (S6)                               | F              | ed Parent Ma  | aterial (F21) | (MLRA 12          | 27, 147)                | unless dis                           | sturbed or problematic.    |
| Restrictive Layer (if observed):                   |                |               |               |                   |                         |                                      |                            |
| Type:  |                |               |               |                   |                         |                                      |                            |
| Depth (inches):                                    |                |               |               |                   |                         | Hydric Soil Present?                 | Yes 🔍 No 🔾                 |
| Remarks:   |                |               |               |                   |                         |                                      |                            |
| Kennarks.  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
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|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |
|  |                |               |               |                   |                         |                                      |                            |

| Project/Site: Telesto Solar Project             | City/County:     | Cecilia/Hardin  | Sa              | mpling Dat | te: 23-Fe | b-21     |
|---|------------------|---|-----------------|------------|-----------|----------|
| Applicant/Owner: 7x Energy                      |                  | State: KY   | Sampling        | g Point:   | D-        | 029      |
| Investigator(s): J. Stelly and C. Hoffmann      | Section, Tow     | nship, Range: S   | т               |            | R         |          |
| Landform (hillslope, terrace, etc.): Flat       | Local relief (co | ncave, convex, none)                                      | flat            | Slope:     | 0.0       | %/°      |
| Subregion (LRR or MLRA): LRR N Lat.:            | 37.68305         | Long.:  | -85.97407       |            | Datum:    | WGS 1984 |
| Soil Map Unit Name: Mv - Melvin silt loam       |                  |   | NWI classificat | tion: PFO1 | 1A        |          |
|   | ear? Yes •       | No O (If no, exp<br>Are "Normal Circ<br>(If needed, expla |                 | sent? Yo   |           | No O     |
| Summary of Findings - Attach site man showing s | ampling po       | int locations t   | ransocts in     | nnortan    | t foatu   | iros otc |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O No | o ●<br>o ●<br>o ● | Is the Sampled Area within a Wetland? | Yes $\odot$ No $\bigcirc$ |
|---|----------|-------------------|---------------------------------------|---------------------------|
| Remarks:  |          |                   |                                       |                           |
|   |          |                   |                                       |                           |

| Wetland Hydrology Indicate                                | ors:                   |        |   |                | econdary Indicators (minimum of two required) |
|---|------------------------|--------|---|----------------|---|
| Primary Indicators (minimu                                | um of one              | requir | ed; check all that apply)                                   |                | Surface Soil Cracks (B6)                      |
| Surface Water (A1)  |                        |        | True Aquatic Plants (B14)                                   |                | Sparsely Vegetated Concave Surface (B8)       |
| High Water Table (A2)                                     |                        |        | Hydrogen Sulfide Odor (C1)                                  |                | Drainage Patterns (B10)                       |
| Saturation (A3)   |                        |        | Oxidized Rhizospheres along Livi                            | ng Roots (C3)  | Moss Trim Lines (B16)                         |
| Water Marks (B1)  |                        |        | Presence of Reduced Iron (C4)                               |                | Dry Season Water Table (C2)                   |
| Sediment Deposits (B2)                                    |                        |        | Recent Iron Reduction in Tilled S                           | Soils (C6)     | Crayfish Burrows (C8)                         |
| Drift deposits (B3)                                       |                        |        | Thin Muck Surface (C7)                                      |                | Saturation Visible on Aerial Imagery (C9)     |
| Algal Mat or Crust (B4)                                   |                        |        | Other (Explain in Remarks)                                  |                | Stunted or Stressed Plants (D1)               |
| Iron Deposits (B5)  |                        |        |   |                | Geomorphic Position (D2)                      |
| Inundation Visible on Aeria                               | al Imagery (           | B7)    |   |                | Shallow Aquitard (D3)                         |
| Water-Stained Leaves (B9)                                 | )                      |        |   |                | Microtopographic Relief (D4)                  |
| Aquatic Fauna (B13)                                       |                        |        |   |                | FAC-neutral Test (D5)                         |
| Field Observations:                                       |                        |        |   |                |   |
| Surface Water Present?                                    | Yes $\bigcirc$         | No (   | Depth (inches):   |                |   |
| Water Table Present?                                      | $_{\rm Yes} \bigcirc$  | No (   | Depth (inches):   |                | ogy Present? Yes 🔿 No 🖲                       |
|   |                        |        | _   | Wetland Hydrol |   |
| Saturation Present?<br>(includes capillary fringe)        | $_{ m Yes}$ $\bigcirc$ | No 🤇   | Depth (inches):   |                | by resent: 103 C No C                         |
| (includes capillary fringe)                               |                        |        | Depth (inches):  pointoring well, aerial photos, previous i | _              |   |
| (includes capillary fringe)                               |                        |        |   | _              |   |
| (includes capillary fringe)                               |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |
| (includes capillary fringe)<br>Describe Recorded Data (st |                        |        |   | _              |   |

|  |          |      | minant               |           | Sampling Point: <b>D-029</b>   |
|--|----------|------|----------------------|-----------|--|
|  | Absolute | Re   | ecies? -<br>I.Strat. | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |      | ver                  | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 50       |      | 58.8%                | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | 30       |      | 35.3%                | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          |      | 5.9%                 | FACW      | Species Across All Strata: <u>2</u> (B)  |
| 4  | -        |      | 0.0%                 |           | Dereent of dominant Species  |
| 5  |          |      | 0.0%                 |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:   |
| 6  |          |      | 0.0%                 |           |  |
| 7  | _        |      | 0.0%                 |           | Prevalence Index worksheet:  |
| 8  |          | <br> | 0.0%                 |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = 10 | tal Cover            | -         | 0BL species <u>0</u> x 1 = <u>0</u>  |
| 1  |          |      | 0.0%                 |           | FACW species $5 \times 2 = 10$   |
| 2  |          |      | 0.0%                 |           | FAC species $0 \times 3 = 0$   |
| 3  | 0        |      | 0.0%                 |           | FACU species $80 \times 4 = 320$   |
| 4  | 0        |      | 0.0%                 |           | UPL species $0 \times 5 = 0$   |
| 5  | 0        |      | 0.0%                 |           | Column Totals: <u>85</u> (A) <u>330</u> (B)  |
| 6  | 0        |      | 0.0%                 |           | Prevalence Index = B/A =3.882  |
| 7  | 0        |      | 0.0%                 |           | Hydrophytic Vegetation Indicators:   |
| 8  | 0        |      | 0.0%                 |           | Rapid Test for Hydrophytic Vegetation  |
| 9  | 0        |      | 0.0%                 |           | Dominance Test is > 50%  |
| 10   | 0        |      | 0.0%                 |           | $\square \text{ Prevalence Index is } \leq 3.0^{-1}$   |
| Shrub Stratum (Plot size:)                                 |          | = To | tal Cover            | -         | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0        |      | 0.0%                 |           | data in Remarks or on a separate sheet)  |
| 2  |          |      | 0.0%                 |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          |      | 0.0%                 |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          |      | 0.0%                 |           | be present, unless disturbed or problematic.   |
| 5  |          |      | 0.0%                 |           | Definition of Vegetation Strata:   |
| 6  | 0        |      | 0.0%                 |           | Four Vegetation Strata:  |
| 7  | 0        |      | 0.0%                 |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum (Plot size:)                                  | 0        | = To | tal Cover            | -         | of height.   |
| 1  | 0        |      | 0.0%                 |           | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.        |
| 2  | 0        |      | 0.0%                 |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3  | 0        |      | 0.0%                 |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4  | 0        |      | 0.0%                 |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5.   | 0        |      | 0.0%                 |           | in height.   |
| 6  | 0        |      | 0.0%                 |           | Five Vegetation Strata:  |
| 7  | 0        |      | 0.0%                 |           | _  |
| 8  | 0        |      | 0.0%                 |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |
| 9  | 0        |      | 0.0%                 |           | diameter at breast height (DBH).   |
| 10   | 0        |      | 0.0%                 |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |
| 11   | 0        |      | 0.0%                 |           | than 3 in. (7.6 cm) DBH.   |
| 12   | 0        |      | 0.0%                 |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.                 |
| Woody Vine Stratum (Plot size:)                            |          | = To | tal Cover            | -         | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1  | 0        |      | 0.0%                 |           | including herbaceous vines, regardless of size, and woody  |
| 2.   | 0        |      | 0.0%                 |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 3  |          |      | 0.0%                 |           | Woody vines – Consists of all woody vines, regardless of   |
| 4.   |          |      | 0.0%                 |           | height.  |
| 5  | 0        |      | 0.0%                 |           |  |
| 6  | 0        |      | 0.0%                 |           | Hydrophytic<br>Vegetation  |
|  | 0        | = To | otal Cove            | r         | Present? Yes No •  |
| Remarks: (Include photo numbers here or on a separate shee |          |      |                      |           |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Descr            | iption: (Describe to   | the depth ne | eded to document    | the indicator                         | or confirm t             | he a   | bsence of indicators.)               |                                       |
|--------------------------|------------------------|--------------|---------------------|---------------------------------------|--------------------------|--------|--------------------------------------|---------------------------------------|
| Depth                    | Matrix                 |              | Red                 | lox Features                          |                          |        |                                      |                                       |
| (inches)                 | Color (moist)          |              | Color (moist)       | <u>%</u> Tv                           | noe <sup>1</sup> Loc     | 2      | Texture                              | Remarks                               |
| 0-21                     | 10YR 3/1               | 100          | Loam                |                                       |                          |        | Loam                                 |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     | · · · · · · · · · · · · · · · · · · · |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     | ·                                     | p                        |        |                                      |                                       |
|                          |                        |              |                     | · ·                                   |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
| <sup>1</sup> Type: C=Con | centration. D=Depletio | n. RM=Reduce | d Matrix, CS=Covere | d or Coated Sa                        | nd Grains <sup>2</sup> L | Locati | ion: PL=Pore Lining. M=Ma            | ıtrix                                 |
| Hydric Soil I            |                        |              |                     |                                       |                          |        | Indicators for Proble                | matic Hydric Soils <sup>3</sup> :     |
| Histosol (A              | A1)                    |              | Dark Surface (S     | 57)                                   |                          |        | 2 cm Muck (A10)                      | (MI RA 147)                           |
| Histic Epi               | pedon (A2)             |              | Polyvalue Below     | v Surface (S8) (                      | MLRA 147,148             | 8)     | _ ``                                 | , , , , , , , , , , , , , , , , , , , |
| Black Hist               | ic (A3)                |              | Thin Dark Surfa     | ce (S9) (MLRA                         | 147, 148)                |        | Coast Prairie Redo<br>(MLRA 147,148) | x (A16)                               |
| Hydrogen                 | Sulfide (A4)           |              | Loamy Gleyed        | Matrix (F2)                           |                          |        | Piedmont Floodpla                    | in Sails (E10)                        |
| Stratified               | Layers (A5)            |              | Depleted Matrix     | (F3)                                  |                          |        | (MLRA 136, 147)                      |                                       |
| 2 cm Muc                 | k (A10) (LRR N)        |              | Redox Dark Su       | face (F6)                             |                          |        | Very Shallow Dark                    | Surface (TF12)                        |
|                          | Below Dark Surface (A  | 11)          | Depleted Dark       | Surface (F7)                          |                          |        | Other (Explain in F                  |                                       |
| · .                      | k Surface (A12)        | ,            | Redox Depress       | ons (F8)                              |                          |        |                                      |                                       |
|                          | ck Mineral (S1) (LRR N | I            | Iron-Manganes       | e Masses (F12)                        | (LRR N,                  |        |                                      |                                       |
| MLRA 147                 | ', 148)                | 1,           | MLRA 136)           |                                       |                          |        |                                      |                                       |
|                          | eyed Matrix (S4)       |              | Umbric Surface      |                                       |                          |        | <sup>3</sup> Indicators of h         | ydrophytic vegetation and             |
| Sandy Re                 |                        |              | Piedmont Floor      | Iplain Soils (F19                     | ) (MLRA 148)             |        | wetland hydr                         | rology must be present,               |
| Stripped M               | Matrix (S6)            |              | Red Parent Ma       | erial (F21) (ML                       | RA 127, 147)             |        | unless dis                           | turbed or problematic.                |
| Restrictive L            | ayer (if observed):    |              |                     |                                       |                          |        |                                      |                                       |
| Type:                    |                        |              |                     |                                       |                          |        |                                      |                                       |
| Depth (incl              |                        |              |                     |                                       |                          |        | Hydric Soil Present?                 | Yes 🔿 No 🖲                            |
| Remarks:                 |                        |              |                     |                                       |                          |        |                                      |                                       |
| Remarks:                 |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
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|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |
|                          |                        |              |                     |                                       |                          |        |                                      |                                       |

| Project/Site: Telesto Solar Project                                  | City/County:                              | Cecilia/Hardin       | Samplir  | ng Date: 23-Feb-21    |
|--|---|----------------------|--|-----------------------|
| Applicant/Owner: 7x Energy   |   | State: KY            | Sampling Poin  | t: D-030              |
| Investigator(s):   | Section, Town                             | nship, Range: S      | т  | R                     |
| Landform (hillslope, terrace, etc.):                                 | Local relief (cor                         | ncave, convex, none) | : \$   | Slope: % / °          |
| Subregion (LRR or MLRA): LRR N Lat.:                                 | 37.68273                                  | Long.:               | -85.97141  | Datum: WGS 1984       |
| Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rarely | flooded)                                  |                      | NWI classification:  | N/A                   |
|  | ar? Yes •<br>ly disturbed?<br>roblematic? | Are "Normal Circo    | ain in Remarks.)<br>umstances" present?<br>in any answers in Rei | Yes 💿 No 🔿<br>marks.) |
| Summary of Findings - Attach site map showing s                      | ampling po                                | int locations, t     | ransects, impo   | rtant features, etc.  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ●<br>Yes ●<br>Yes ● | No 〇<br>No 〇<br>No 〇 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                         |                      |                                       |   |
| Wet-15  |                         |                      |                                       |   |
|   |                         |                      |                                       |   |
|   |                         |                      |                                       |   |

| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required) |
|---|--|
| Primary Indicators (minimum of one required; check all that apply)  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2) Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)                        |
| □ Saturation (A3)   | Moss Trim Lines (B16)                          |
| Water Marks (B1) Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   | ✓ FAC-neutral Test (D5)                        |
| Field Observations:   |  |
| Surface Water Present? Yes  No  Depth (inches): 4   |  |
| Water Table Present? Yes O No O Depth (inches):   | Irology Present? Yes 💿 No 🔾                    |
|   |  |
| Saturation reserves $V_{OS}()$ No $(\bullet)$ Donth (inches):   | irology Present? Yes 🔍 No 🔾                    |
| Saturation Present?<br>(includes capillary fringe)       Yes       No       Depth (inches):       Wetland Hyc         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava |  |
| (includes capillary fringe) Yes Vo Vo Depth (inches):   |  |
| (includes capillary fringe) Yes Vo Vo Depth (inches):   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Yes       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |
| Ves       No       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if ava   |  |

| · · · · · · · · · · · · · · · · · · ·                      |          | Dominant           | Sampling Point: D-030  |  |  |
|--|----------|--------------------|--|--|--|
|  | Absolute | iten.ou ut.        | cator Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                    | Number of Dominant Species   |  |  |
| 1. Acer rubrum   | 50       | <b>✓</b> 55.6% FAC |  |  |  |
| 2. Celtis laevigata  | 20       | ✓ 22.2% FAC        | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          | ✓ 22.2% FAC        | Species Across All Strata: <u>3</u> (B)  |  |  |
| 4  | -        | 0.0%               | Demonstration for the sector of the se |  |  |
| 5  |          | 0.0%               | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |  |  |
| 6  |          | 0.0%               |  |  |  |
| 7  |          | 0.0%               | Prevalence Index worksheet:  |  |  |
| 8  |          | 0.0%               | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = Total Cover      | OBL species x 1 =  |  |  |
| 1  | •        | 0.0%               | FACW species $40$ x 2 = $80$   |  |  |
| 2  |          | 0.0%               | <b>FAC speci es</b> <u>50</u> <b>x 3</b> = <u>150</u>  |  |  |
|  |          | 0.0%               | FACU species $0 \times 4 = 0$  |  |  |
| 3  |          | 0.0%               | UPL species x 5 =  |  |  |
| 5  |          | 0.0%               | Column Totals: (A) (B)   |  |  |
| 6  |          | 0.0%               |  |  |  |
|  |          | 0.0%               | Prevalence Index = $B/A = 2.556$   |  |  |
| 7  |          | 0.0%               | Hydrophytic Vegetation Indicators:   |  |  |
| 8  |          | 0.0%               | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  |          | 0.0%               | ■ Dominance Test is > 50%  |  |  |
| 10   |          | = Total Cover      | $\blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare  \blacksquare $  |  |  |
| Shrub Stratum (Plot size:)                                 |          |                    | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1  |          | 0.0%               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 2  |          | 0.0%               |  |  |  |
| 3  |          | 0.0%               | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |  |  |
| 4  |          | 0.0%               |  |  |  |
| 5  |          | 0.0%               | Definition of Vegetation Strata:   |  |  |
| 6  | 0        | 0.0%               | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
| 7  | 0        | 0.0%               | (7.6 cm) or more in diameter at breast height (DBH), regardless  |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = Total Cover      | of height.   |  |  |
| 1  | 0        | 0.0%               | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |  |  |
| 2  | 0        | 0.0%               | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3  | 0        | 0.0%               | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0        | 0.0%               | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |
| 5  | 0        | 0.0%               |  |  |  |
| 6  | 0        | 0.0%               | Five Vegetation Strata:  |  |  |
| 7  | 0        | 0.0%               | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  | 0        | 0.0%               | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |
| 9  | 0        | 0.0%               | diameter at breast height (DBH).   |  |  |
| 10   | 0        | 0.0%               | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less   |  |  |
| 11   | 0        | 0.0%               | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   | 0        | 0.0%               | Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |
| Woody Vine Stratum (Plot size:)                            | 0        | = Total Cover      | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0        | 0.0%               | including herbaceous vines, regardless of size, and woody  |  |  |
| 2.   | 0        | 0.0%               | species, except woody vines, less than approximately 3 ft (1<br>m) in height.  |  |  |
|  |          | 0.0%               | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 3  |          | 0.0%               | height.  |  |  |
|  | 0        | 0.0%               |  |  |  |
| 5  | 0        | 0.0%               | Hydrophytic     Vegetation   |  |  |
| 6  | 0        | = Total Cover      | Present? Yes O No  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |          |                    |  |  |  |

| Depth       |                         | ine deptri n |                     |                   |                              | absence of indicators.)               |                                   |
|-------------|-------------------------|--------------|---------------------|-------------------|------------------------------|---------------------------------------|-----------------------------------|
|             | Matrix                  |              |                     | edox Features     | 1                            | . <u> </u>                            | <b>_</b> .                        |
| inches)     | Color (moist)           |              | Color (moist)       |                   |                              | Texture                               | Remarks                           |
| 0-21        | 10YR 3/1                | 80           | 5YR 4/6             | 20                | C M                          | Loam                                  |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
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|             |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
| e: C=Con    | centration. D=Depletior | ı. RM=Redu   | ced Matrix, CS=Cove | ered or Coated S  | and Grains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M             | atrix                             |
| Iric Soil I | Indicators:             |              |                     |                   |                              | Indicators for Proble                 | matic Hydric Soils <sup>3</sup> : |
| Histosol (  | A1)                     |              | Dark Surface        | (S7)              |                              | 2 cm Muck (A10)                       | -                                 |
| Histic Epi  | pedon (A2)              |              | Polyvalue Be        | low Surface (S8)  | (MLRA 147,148)               |                                       |                                   |
| Black Hist  | tic (A3)                |              | Thin Dark Su        | rface (S9) (MLRA  | 147, 148)                    | Coast Prairie Redo<br>(MLRA 147,148)  | X (A16)                           |
| Hydrogen    | Sulfide (A4)            |              | Loamy Gleye         | d Matrix (F2)     |                              | Piedmont Floodpla                     | ain Soils (F19)                   |
| Stratified  | Layers (A5)             |              | Depleted Mat        | trix (F3)         |                              | (MLRA 136, 147)                       |                                   |
| 2 cm Muc    | k (A10) (LRR N)         |              | Redox Dark S        | Surface (F6)      |                              | Very Shallow Dark                     | Surface (TF12)                    |
| Depleted    | Below Dark Surface (A1  | 1)           | Depleted Dar        |                   | Other (Explain in            | Remarks)                              |                                   |
| Thick Dar   | k Surface (A12)         |              | Redox Depre         |                   |                              |                                       |                                   |
| Sandy Mu    | ick Mineral (S1) (LRR N | ,            |                     | ese Masses (F12   | ) (LRR N,                    |                                       |                                   |
| MLRA 147    |                         |              | MLRA 136)           | (512) (MI DA      | 12( 122)                     |                                       |                                   |
|             | eyed Matrix (S4)        |              |                     | ce (F13) (MLRA    |                              | <sup>3</sup> Indicators of            | nydrophytic vegetation and        |
| Sandy Re    |                         |              |                     | odplain Soils (F1 |                              | wetland hyd                           | rology must be present,           |
| Stripped I  | Matrix (S6)             |              | Red Parent N        | Material (F21) (M | LRA 127, 147)                | unless dis                            | turbed or problematic.            |
| trictive L  | ayer (if observed):     |              |                     |                   |                              |                                       |                                   |
| Туре:       | - · · ·                 |              |                     |                   |                              |                                       |                                   |
| Depth (inc  | hes):                   |              |                     |                   |                              | Hydric Soil Present?                  | Yes 🖲 No 🔾                        |
| marks:      |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |
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|             |                         |              |                     |                   |                              |                                       |                                   |
|             |                         |              |                     |                   |                              |                                       |                                   |

| Project/Site: Telesto Solar Project   | City/County: Cecilia/Hardin |                     | Sampling Date: 23-F |               | p-21      |  |  |  |  |  |
|---|-----------------------------|---------------------|---------------------|---------------|-----------|--|--|--|--|--|
| Applicant/Owner: 7x Energy  |                             | State: KY           | Sampling P          | oint: D-      | 031       |  |  |  |  |  |
| Investigator(s): J. Stelly and C. Hoffmann  | Section, Town               | nship, Range: S     | т                   | R             |           |  |  |  |  |  |
| Landform (hillslope, terrace, etc.):  | Local relief (co            | ncave, convex, none | ):                  | Slope: 0.0    | %/°       |  |  |  |  |  |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68269                    | Long.:              | -85.97107           | Datum:        | WGS 1984  |  |  |  |  |  |
| Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rarely  | flooded)                    |                     | NWI classification  | n: PFO1A      |           |  |  |  |  |  |
| Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No |                             |                     |                     |               |           |  |  |  |  |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | roblematic?                 | (If needed, expl    | ain any answers in  | Remarks.)     |           |  |  |  |  |  |
| Summary of Findings - Attach site map showing s   | ampling po                  | int locations, t    | transects, imp      | oortant featu | res, etc. |  |  |  |  |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes 🖲 No 🔿 |
|---|-------------------|----------------------|---------------------------------------|------------|
| Remarks:  |                   |                      |                                       |            |
|   |                   |                      |                                       |            |
|   |                   |                      |                                       |            |
|   |                   |                      |                                       |            |

| Wetland Hydrology Indicato   | rs:                     |                      |  | Secondary Indicators (minimum of two required)  |
|--|-------------------------|----------------------|--|---|
| Primary Indicators (minimu   | m of one                | required; o          | check all that apply)  | Surface Soil Cracks (B6)  |
| Surface Water (A1)   |                         |                      | True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)  |                         |                      | Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)   |
| Saturation (A3)  |                         |                      | Oxidized Rhizospheres along Living Roots (C3)  | Moss Trim Lines (B16)   |
| Water Marks (B1)   |                         |                      | Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)   |                         |                      | Recent Iron Reduction in Tilled Soils (C6)   | Crayfish Burrows (C8)   |
| Drift deposits (B3)  |                         |                      | Thin Muck Surface (C7)   | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)  |                         |                      | Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)   |                         |                      |  | Geomorphic Position (D2)  |
| Inundation Visible on Aerial   | Imagery (               | B7)                  |  | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)  |                         |                      |  | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)  |                         |                      |  | FAC-neutral Test (D5)   |
| Field Observations:  | 0                       | 0                    |  |   |
| Surface Water Present?   | Yes $\bigcirc$          | No 🖲                 | Depth (inches):  |   |
| Water Table Present?   | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):  |   |
| Saturation Present?<br>(includes capillary fringe)   | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Wetland Hy Depth (inches):   | drology Present? Yes 🔾 NO 🖲   |
|  | eam gaug                | je, monito           | ring well, aerial photos, previous inspections), if av   | ailable:  |
|  |                         |                      |  |   |
| Remarks:   |                         |                      |  |   |
|  |                         |                      |  |   |
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|  |                         |                      |  |   |
|  |                         |                      |  |   |
|  |                         |                      |  |   |
| <ul> <li>Drift deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul> Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present? Cincludes capillary fringe) Describe Recorded Data (struet) | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland Hy | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|  |          | Dominant       |           | Sampling Point: D-031  |  |  |
|--|----------|----------------|-----------|--|--|--|
|  | Absolute | nen.ou au      | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                | Status    | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 50       | 58.8%          | FACU      | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis occidentalis                                     | 30       | <b>⊻</b> 35.3% | FACU      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          | 5.9%           | FACW      | Species Across All Strata: <u>2</u> (B)  |  |  |
| 4  | -        | 0.0%           |           |  |  |  |
| 5  |          | 0.0%           |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |  |  |
| 6  |          | 0.0%           |           |  |  |  |
| 7  |          | 0.0%           |           | Prevalence Index worksheet:  |  |  |
| 8  |          | 0.0%           |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:                  | 85       | = Total Cove   | •         | OBL species x 1 =  |  |  |
| 1  | •        | 0.0%           |           | FACW species _5_ x 2 = _10_  |  |  |
| 2  |          | 0.0%           |           | FAC species x 3 =  |  |  |
| 3  |          | 0.0%           |           | <b>FACU species</b> $80 \times 4 = 320$  |  |  |
| 4  |          | 0.0%           |           | UPL species x 5 =0   |  |  |
| 4<br>5   |          | 0.0%           |           | Column Totals:   |  |  |
| 6  |          | 0.0%           |           |  |  |  |
|  |          | 0.0%           |           | Prevalence Index = B/A = <u>3.882</u>  |  |  |
| 7  |          | 0.0%           |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8  |          | 0.0%           |           | Rapid Test for Hydrophytic Vegetation  |  |  |
|  |          | 0.0%           |           | Dominance Test is > 50%  |  |  |
| 10   |          | = Total Cove   |           | Prevalence Index is $\leq$ 3.0 <sup>1</sup>  |  |  |
| Shrub Stratum (Plot size:)                                 |          | _              |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |  |  |
| 1  | 0        | 0.0%           |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 2  |          | 0.0%           |           |  |  |  |
| 3  |          | 0.0%           |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.              |  |  |
| 4  |          | 0.0%           |           |  |  |  |
| 5  |          | 0.0%           |           | Definition of Vegetation Strata:   |  |  |
| 6  | 0        | 0.0%           |           | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                     |  |  |
| 7  | 0        | 0.0%           |           | (7.6 cm) or more in diameter at breast height (DBH), regardless  |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = Total Cover  |           | of height.   |  |  |
| 1  | 0        | 0.0%           |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |  |  |
| 2  | 0        | 0.0%           |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3  | 0        | 0.0%           |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0        | 0.0%           |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |  |  |
| 5  | 0        | 0.0%           |           | in height.   |  |  |
| 6  | 0        | 0.0%           |           | Five Vegetation Strata:  |  |  |
| 7  | 0        | 0.0%           |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  | 0        | 0.0%           |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |
| 9  | 0        | 0.0%           |           | diameter at breast height (DBH).   |  |  |
| 10   | 0        | 0.0%           |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |  |  |
| 11   | 0        | 0.0%           |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   |          | 0.0%           |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |  |  |
| Woody Vine Stratum (Plot size:)                            | 0        | = Total Cove   |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0        | 0.0%           |           | including herbaceous vines, regardless of size, and woody  |  |  |
| 2.   | 0        | 0.0%           |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |  |  |
|  |          | 0.0%           |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 3<br>4   | -        | 0.0%           |           | height.  |  |  |
|  | 0        | 0.0%           |           |  |  |  |
| 5  | 0        | 0.0%           |           | Hydrophytic<br>Vegetation  |  |  |
| 6  | 0        | = Total Cove   | r         | Present? Yes No 🖲  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |          |                |           | I  |  |  |

| Profile Descr            | iption: (Describe to               | the depth   | needed to document     | the indica   | ator or co        | nfirm the a             | bsence of indicators.)   |                                    |  |  |
|--------------------------|------------------------------------|-------------|------------------------|--------------|-------------------|-------------------------|--|------------------------------------|--|--|
| Depth                    | Matrix                             |             | Ree                    | dox Featu    |                   |                         |  |                                    |  |  |
| (inches)                 | Color (moist)                      | %           | Color (moist)          | %            | Tvpe <sup>1</sup> | Loc <sup>2</sup>        | Texture  | Remarks                            |  |  |
| 0-21                     | 10YR 3/1                           | 100         |                        |              |                   |                         | Loam   |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  | •                                  |  |  |
|                          |                                    |             | ·                      | - ,          |                   |                         |  |                                    |  |  |
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| -                        |                                    |             |                        |              |                   |                         |  |                                    |  |  |
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|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
| <sup>1</sup> Type: C=Con | centration D=Depletio              | n RM=Redu   | uced Matrix, CS=Covere | ed or Coate  | d Sand Gra        | ins <sup>2</sup> l ocat | tion: PL=Pore Lining. M=M  | atrix                              |  |  |
| Hydric Soil I            | •                                  | n. Kin=Keut |                        |              |                   | EUCU                    | Ũ  |                                    |  |  |
|                          |                                    |             | Dark Surface (         | (7)          |                   |                         | Indicators for Proble  | ematic Hydric Soils <sup>3</sup> : |  |  |
|                          | bedon (A2)                         |             | Polyvalue Belov        | •            |                   | 147 140)                | 2 cm Muck (A10)  | (MLRA 147)                         |  |  |
| Black Hist               |                                    |             | Thin Dark Surfa        |              |                   |                         | Coast Prairie Red  | ox (A16)                           |  |  |
|                          | Sulfide (A4)                       |             |                        |              | LKA 147, I        | 40)                     | (MLRA 147,148)   |                                    |  |  |
|                          | Layers (A5)                        |             | Loamy Gleyed           |              |                   |                         | Piedmont Floodpl   | ain Soils (F19)                    |  |  |
|                          | k (A10) (LRR N)                    |             | Depleted Matrix        |              |                   |                         | (MLRA 136, 147)  |                                    |  |  |
|                          |                                    |             | Depleted Dark          |              | <b>`</b>          |                         | Very Shallow Dar   |                                    |  |  |
|                          | Below Dark Surface (A              | 11)         | Redox Depress          |              | )                 |                         | Other (Explain in  | Remarks)                           |  |  |
|                          | k Surface (A12)                    |             |                        |              |                   | M                       |  |                                    |  |  |
| MLRA 147                 | ick Mineral (S1) (LRR N<br>7. 148) | Ι,          | MLRA 136)              | e masses (i  | 12) (LIXIX        | Ν,                      |  |                                    |  |  |
|                          | eyed Matrix (S4)                   |             | Umbric Surface         | e (F13) (MLI | RA 136, 12        | 2)                      |  |                                    |  |  |
| Sandy Ree                |                                    |             | Piedmont Flood         |              |                   |                         | <sup>3</sup> Indicators of hydrophytic vegetation and                  |                                    |  |  |
|                          | Matrix (S6)                        |             | Red Parent Ma          |              |                   |                         | wetland hydrology must be present,<br>unless disturbed or problematic. |                                    |  |  |
|                          |                                    |             |                        |              |                   | , ,                     |  |                                    |  |  |
| Restrictive L            | ayer (if observed):                |             |                        |              |                   |                         |  |                                    |  |  |
| Туре:                    |                                    |             |                        |              |                   |                         |  |                                    |  |  |
| Depth (incl              | hes):                              |             |                        |              |                   |                         | Hydric Soil Present?   | Yes 🔾 No 🖲                         |  |  |
| Remarks:                 |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
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|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
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|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |
|                          |                                    |             |                        |              |                   |                         |  |                                    |  |  |

I

| Project/Site: Telesto Solar Project                          | City/County:                                | Cecilia/Hardin       | Samp   | oling Date: 24 | te: 24-Feb-21   |  |
|--|---|----------------------|--|----------------|-----------------|--|
| Applicant/Owner: 7x Energy                                   |   | State: KY            | Sampling Po  | oint:          | D-032           |  |
| Investigator(s): J. Stelly and C. Hoffmann                   | Section, Towr                               | nship, Range: S      | т  | R              |                 |  |
| Landform (hillslope, terrace, etc.): Flat                    | Local relief (con                           | ncave, convex, none) | flat   | Slope: 0.      | %/ <u>0.0</u> ° |  |
| Subregion (LRR or MLRA): LRR N Lat.:                         | 37.68683                                    | Long.:               | -85.96813  | Datu           | m: WGS 1984     |  |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes) |   |                      | NWI classification   | n: <u>N/A</u>  |                 |  |
|  | ear? Yes •<br>ly disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" presen<br>ain any answers in l |                | No O            |  |
| Summary of Findings - Attach site map showing s              |   | • • •                | 5  |                | atures, etc.    |  |

| Hydrophytic Vegetation Present? | $_{ m Yes}$ $\bigcirc$ | No 🖲 |                     |                              |
|---------------------------------|------------------------|------|---------------------|------------------------------|
| Hydric Soil Present?            | $_{ m Yes}$ $\bigcirc$ | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\bigcirc$ |
| Wetland Hydrology Present?      | $Yes  \bigcirc $       | No 🖲 | within a Wetland?   |                              |
| Remarks:                        |                        |      |                     |                              |
|                                 |                        |      |                     |                              |
|                                 |                        |      |                     |                              |
|                                 |                        |      |                     |                              |

| Wetland Hydrology Indicate  | ors:                    |                      |   | Secondary Indicators (minimum of two required)  |
|---|-------------------------|----------------------|---|---|
| Primary Indicators (minimu  | um of one               | required;            | check all that apply)   | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                         |                      | True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)   |                         |                      | Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)   |
| Saturation (A3)   |                         |                      | Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Water Marks (B1)  |                         |                      | Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  |                         |                      | Recent Iron Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                         |                      | Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)   |                         |                      | Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  |                         |                      |   | Geomorphic Position (D2)  |
| Inundation Visible on Aeria   | al Imagery (            | B7)                  |   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | )                       |                      |   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   |                         |                      |   | FAC-neutral Test (D5)   |
| Field Observations:   | 0                       | 0                    |   |   |
| Surface Water Present?  | Yes $\bigcirc$          | No 🔍                 | Depth (inches):   |   |
| Water Table Present?  | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):   |   |
| Saturation Present?<br>(includes capillary fringe)  | $_{\rm Yes} \bigcirc$   | No 🖲                 | Wetlan<br>Depth (inches):   | d Hydrology Present? Yes 🔾 No 👻   |
| Describe Recorded Data (st  | tream gauç              | ge, monito           | ring well, aerial photos, previous inspections),  | if available:   |
|   |                         |                      |   |   |
| Remarks:  |                         |                      |   |   |
|   |                         |                      |   |   |
|   |                         |                      |   |   |
|   |                         |                      |   |   |
|   |                         |                      |   |   |
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|   |                         |                      |   |   |
|   |                         |                      |   |   |
|   |                         |                      |   |   |
|   |                         |                      |   |   |
| Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|  |          | Dominant       |           | Sampling Point: D-032  |
|--|----------|----------------|-----------|--|
|  | Absolute | non.otrat.     | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |                | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 50       | 58.8%          | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | 30       | <b>⊻</b> 35.3% | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          | 5.9%           | FACW      | Species Across All Strata: <u>2</u> (B)  |
| 4  | -        | 0.0%           | ·         | Demont of dominant Creation  |
| 5  |          | 0.0%           |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:(A/B)  |
| 6  |          | 0.0%           |           |  |
| 7  |          | 0.0%           |           | Prevalence Index worksheet:  |
| 8  |          | 0.0%           |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85       | = Total Cove   | -         | OBL species x 1 =  |
| 1  |          | 0.0%           |           | FACW species $5 \times 2 = 10$   |
| 2  |          | 0.0%           |           | FAC species $0 \times 3 = 0$   |
| 3.   |          | 0.0%           |           | <b>FACU speci es</b> $80 	 x 	 4 = 320$  |
| 4  |          | 0.0%           |           | UPL species x 5 =  |
| 5  |          | 0.0%           |           | Column Totals: <u>85</u> (A) <u>330</u> (B)  |
| 6  |          | 0.0%           |           | Prevalence Index = $B/A = 3.882$   |
| 7  |          | 0.0%           |           | Hydrophytic Vegetation Indicators:   |
| 8  |          | 0.0%           |           | Rapid Test for Hydrophytic Vegetation  |
| 9  |          | 0.0%           |           | Dominance Test is > 50%  |
| 10   |          | 0.0%           |           | $\square \text{ Prevalence Index is } 30\%$  |
| Shrub Stratum (Plot size:)                                 | 0        | = Total Cove   |           | Prevalence Index is \$3.0     Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0        | 0.0%           |           | data in Remarks or on a separate sheet)  |
| 2  |          | 0.0%           |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%           |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%           |           | be present, unless disturbed or problematic.   |
| 5  | 0        | 0.0%           |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%           |           | Four Vegetation Strata:  |
| 7  | 0        | 0.0%           |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum <sup>(Plot size:</sup> )                      | 0        | = Total Cove   | -         | of height.   |
| 1  | 0        | 0.0%           |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.     |
| 2.   | 0        | 0.0%           |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3  | 0        | 0.0%           |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4.   | 0        | 0.0%           |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5  | 0        | 0.0%           |           | in height.   |
| 6  | 0        | 0.0%           |           | Five Vegetation Strata:  |
| 7  | 0        | 0.0%           |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  | 0        | 0.0%           |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9  | 0        | 0.0%           |           | diameter at breast height (DBH).   |
| 10   | 0        | 0.0%           |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |
| 11   | 0        | 0.0%           |           | than 3 in. (7.6 cm) DBH.   |
| 12   | 0        | 0.0%           |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.                 |
| Woody Vine Stratum (Plot size:)                            |          | = Total Cove   | -         | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| <u> </u>   | 0        | 0.0%           |           | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1             |
| 2  | 0        | 0.0%           |           | m) in height.  |
| 3  | 0        | 0.0%           |           | Woody vines – Consists of all woody vines, regardless of   |
| 4  |          | 0.0%           |           | height.  |
| 5  | _        | 0.0%           |           | Hydrophytic  |
| 6  | 0        | 0.0%           |           | Vegetation   |
|  | 0        | = Total Cove   | r         | Present? Yes V No V  |
| Remarks: (Include photo numbers here or on a separate shee | ot )     |                |           |  |

| Profile Descri            | iption: (Describe to              | the depth ne | eded to document           | the indica   | tor or co         | nfirm the a            | bsence of indicators.)       |  |
|---------------------------|-----------------------------------|--------------|----------------------------|--------------|-------------------|------------------------|------------------------------|--|
| Depth                     | Matrix                            |              |                            | dox Featur   |                   |                        |                              |  |
| (inches)                  | Color (moist)                     | %            | Color (moist)              | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                      | Remarks  |
| 0-21                      | 10YR 3/1                          | 100          |                            |              |                   |                        | Loam                         |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           | _                                 |              | _                          |              |                   |                        |                              |  |
|                           |                                   | ·            |                            |              |                   |                        |                              |  |
|                           |                                   |              | <u>_</u>                   |              |                   |                        |                              |  |
|                           |                                   |              | <u>_</u>                   | ·            |                   |                        | ·                            |  |
|                           | <u> </u>                          |              | <u></u>                    | - <u></u>    |                   |                        | ,,                           |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Reduce | d Matrix, CS=Covere        | ed or Coated | d Sand Gra        | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=M    | atrix  |
| Hydric Soil I             | ndicators:                        |              |                            |              |                   |                        | Indicators for Proble        | ematic Hydric Soils <sup>3</sup> :                     |
| Histosol (A               |                                   |              | Dark Surface (S            | •            |                   |                        | 2 cm Muck (A10)              | 2  |
| Histic Epip               |                                   |              | Polyvalue Belov            |              |                   |                        | Coast Prairie Redo           |  |
| Black Histi               |                                   |              | Thin Dark Surfa            |              | LRA 147, 1        | 48)                    | (MLRA 147,148)               | DX (A10)   |
|                           | Sulfide (A4)                      |              | Loamy Gleyed               |              |                   |                        | Piedmont Floodpl             | ain Soils (F19)  |
|                           | Layers (A5)                       |              | Depleted Matrix            |              |                   |                        | (MLRA 136, 147)              |  |
| 2 cm Muck                 | < (A10) (LRR N)                   |              | Redox Dark Su              |              |                   |                        | Very Shallow Dark            | surface (TF12)   |
|                           | Below Dark Surface (A             | 11)          | Depleted Dark              |              | )                 |                        | Other (Explain in            | Remarks)   |
| Thick Dark                | k Surface (A12)                   |              | Redox Depress              |              |                   |                        |                              |  |
| Sandy Mue<br>MLRA 147     | ck Mineral (S1) (LRR N<br>', 148) | <b>,</b>     | Iron-Manganes<br>MLRA 136) |              |                   |                        |                              |  |
| Sandy Gle                 | yed Matrix (S4)                   |              | Umbric Surface             | e (F13) (MLF | RA 136, 12        | 2)                     | 3                            | · · · · · · · · · · · ·                                |
| Sandy Rec                 | dox (S5)                          |              | Piedmont Floor             | plain Soils  | (F19) (MLF        | RA 148)                | Indicators of<br>wetland hyd | hydrophytic vegetation and<br>Irology must be present, |
| Stripped N                | Aatrix (S6)                       |              | Red Parent Ma              | terial (F21) | (MLRA 127         | 7, 147)                |                              | sturbed or problematic.                                |
| Restrictive La            | ayer (if observed):               |              |                            |              |                   |                        |                              |  |
| Туре:                     |                                   |              |                            |              |                   |                        |                              |  |
| Depth (inch               | nes):                             |              |                            |              |                   |                        | Hydric Soil Present?         | Yes 🔿 No 🖲   |
| Remarks:                  | •                                 |              |                            |              |                   |                        |                              |  |
| rtomantor                 |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |
|                           |                                   |              |                            |              |                   |                        |                              |  |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin      | Sampli                                    | ing Date: 24-Fe | e: 24-Feb-21 |  |  |
|---|------------------|---------------------|---|-----------------|--------------|--|--|
| Applicant/Owner: 7x Energy  |                  | State: KY           | Sampling Poin                             | nt: D           | -033         |  |  |
| Investigator(s): J. Stelly and C. Hoffmann  | Section, Tow     | nship, Range: S     | т   | R               |              |  |  |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none | ): flat                                   | Slope:0.0       | %/°          |  |  |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68884         | Long.:              | -85.9389                                  | Datum           | WGS 1984     |  |  |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes)  |                  |                     | NWI classification:                       | PUBFh           |              |  |  |
| Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                     | lain in Remarks.)<br>:umstances" present? | Yes 🖲           | No 〇         |  |  |
| Are Vegetation, Soil, or Hydrology naturally p  | problematic?     | (If needed, expl    | ain any answers in Re                     | emarks.)        |              |  |  |
| Summary of Findings - Attach site map showing s   | ampling po       | int locations,      | transects, impo                           | ortant feat     | ures, etc.   |  |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ○<br>Yes ○<br>Yes ○ | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes 🖲 No 🔿 |
|---|-------------------------|----------------------|---------------------------------------|------------|
| Remarks:  |                         |                      |                                       |            |
|   |                         |                      |                                       |            |
|   |                         |                      |                                       |            |
|   |                         |                      |                                       |            |

| Wetland Hydrology Indicators:          |             |   | Secondary Indicators (minimum of two required) |
|--|-------------|---|--|
| Primary Indicators (minimum of one     | required; c | heck all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                     |             | True Aquatic Plants (B14)                         | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                  |             | Hydrogen Sulfide Odor (C1)                        | Drainage Patterns (B10)                        |
| Saturation (A3)                        |             | Oxidized Rhizospheres along Living Roots (C3)     | Moss Trim Lines (B16)                          |
| Water Marks (B1)                       |             | Presence of Reduced Iron (C4)                     | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                 |             | Recent Iron Reduction in Tilled Soils (C6)        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                    |             | Thin Muck Surface (C7)                            | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                |             | Other (Explain in Remarks)                        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                     |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery ( | (B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)              |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                    |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                    | 0           |   |  |
| Surface Water Present? Yes O           | No 🖲        | Depth (inches):                                   |  |
| Water Table Present? Yes $\bigcirc$    | No 🖲        | Depth (inches):                                   | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present? Yes O              | No 🖲        | Wetland<br>Depth (inches):                        | I Hydrology Present? Yes 🔾 No 🖲                |
| Describe Recorded Data (stream gauge   | ge, monitor | ing well, aerial photos, previous inspections), i | f available:                                   |
|  |             |   |  |
| Remarks:                               |             |   |  |
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|  |             |   |  |
|  |             |   |  |
| Describe Recorded Data (stream gau     |             |   | f available:                                   |

|   |           | Dominant<br>– Species? |           | Sampling Point: <b>D-033</b>  |
|---|-----------|------------------------|-----------|---|
|   | Absolute  | Rel.Strat.             | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                 | % Cover   | Cover                  | Status    | Number of Dominant Species  |
| 1   | 0         | 0.0%                   |           | That are OBL, FACW, or FAC: (A)   |
| 2   |           | 0.0%                   |           | Total Number of Dominant  |
| 3   |           | 0.0%                   |           | Species Across All Strata: (B)  |
| 4   | -         | 0.0%                   |           | Dereent of dominant Species   |
| 5   |           | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  |
| 6   |           | 0.0%                   |           |   |
| 7   |           | 0.0%                   |           | Prevalence Index worksheet:   |
| 8   |           | 0.0%                   |           | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                |           | = Total Cover          | -         | OBL species $0 \times 1 = 0$  |
| 1.  |           | 0.0%                   |           | FACW species $0 \times 2 = 0$   |
| 2   |           | 0.0%                   |           | FAC species $0 \times 3 = 0$  |
| 3.  |           | 0.0%                   |           | FACU species x 4 =  |
| 4.  |           | 0.0%                   |           | UPL species $50 \times 5 = 250$   |
| 5   |           | 0.0%                   |           | Column Totals: (A) (B)  |
| 6   | _         | 0.0%                   |           | Prevalence Index = B/A = 5.000  |
| 7   |           | 0.0%                   |           |   |
| 8   |           | 0.0%                   |           | Hydrophytic Vegetation Indicators:  |
| 9   |           | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation   |
| 10.   |           | 0.0%                   |           | $\Box Dominance Test is > 50\%$   |
|   |           | = Total Cove           |           | $\square Prevalence Index is \leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                    | 0         | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |
| 2   | 0         | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 3   |           | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 4   |           | 0.0%                   |           | be present, unless disturbed or problematic.  |
| 5   |           | 0.0%                   |           | Definition of Vegetation Strata:  |
| 6   |           | 0.0%                   |           | Four Vegetation Strata:   |
| 7   | 0         | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |
| Herb Stratum (Plot size:)                                 | 0 :       | = Total Cover          | -         | (7.6 cm) or more in diameter at breast height (DBH), regardless<br>of height.   |
|   | 50        | ✔ 100.0%               | UPL       | Sapling/shrub stratum – Consists of woody plants, excluding   |
| 1. Zea mays   | 0         | 0.0%                   |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |
| 2   | 0         | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |
| 3   | 0         | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 4   | 0         | 0.0%                   |           | in height.  |
| 5   |           | 0.0%                   |           |   |
| 67  |           | 0.0%                   | ·         | Five Vegetation Strata:   |
| 7   |           | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20  |
| 8   | 0         | 0.0%                   |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |
| 9   | 0         | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody   |
| 10  |           |                        |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| 11  | 0         | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody   |
| 12  | 0<br>50 = | = Total Cover          |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| _Woody Vine Stratum_ (Plot size:)                         |           | _                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody        |
| 1   | 0         | 0.0%                   | ·         | species, except woody vines, less than approximately 3 ft (1  |
| 2   |           | 0.0%                   |           | m) in height.   |
| 3   |           | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of  |
| 4   | 0         | 0.0%                   |           | height.   |
| 5   | 0         | 0.0%                   |           | Hydrophytic   |
| 6   | 0         | 0.0%                   |           | Vegetation  |
|   | 0         | = Total Cove           | r         | Present? Yes V No V   |
| Remarks: (Include photo numbers here or on a senarate she | s+ )      |                        |           |   |

ep

| Profile Descr        | iption: (Describe to   | the depth | needed to document         | the indica   | ator or co        | nfirm the a      | absence of indicators.)    |   |
|----------------------|------------------------|-----------|----------------------------|--------------|-------------------|------------------|----------------------------|---|
| Depth                | Matrix                 |           | Re                         | dox Featu    |                   |                  |                            |   |
| (inches)             | Color (moist)          | %         | Color (moist)              | %            | Tvpe <sup>1</sup> | Loc <sup>2</sup> | Texture                    | Remarks   |
| 0-21                 | 10YR 3/3               | 100       |                            |              |                   |                  | Loam                       |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            | •   |
|                      |                        |           | ·                          | - ,          |                   |                  |                            | -   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
| 67                   |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      | contration D-Donletio  | n PM-Podu | red Matrix CS-Cover        | nd or Coster | d Sand Gra        | ins 21 ocat      | tion: PL=Pore Lining. M=M  | atriv   |
| 5.                   | •                      |           |                            |              |                   |                  | Ũ                          |   |
| Hydric Soil I        |                        |           |                            | (7)          |                   |                  | Indicators for Proble      | ematic Hydric Soils <sup>3</sup> :                  |
| Histosol (           |                        |           | Dark Surface (             | •            |                   | 147 140)         | 2 cm Muck (A10)            | (MLRA 147)  |
|                      | bedon (A2)             |           |                            |              |                   |                  | Coast Prairie Red          | ox (A16)  |
| Black Hist           |                        |           | Thin Dark Surfa            |              | LRA 147, 1        | 48)              | (MLRA 147,148)             |   |
|                      | Sulfide (A4)           |           | Loamy Gleyed               |              |                   |                  | Piedmont Floodpl           | ain Soils (F19)                                     |
|                      | Layers (A5)            |           | Depleted Matri             |              |                   |                  | (MLRA 136, 147)            |   |
|                      | k (A10) (LRR N)        |           | Redox Dark Su              |              |                   |                  | Very Shallow Dar           | k Surface (TF12)                                    |
|                      | Below Dark Surface (A  | 11)       | Depleted Dark              |              | )                 |                  | Other (Explain in          | Remarks)  |
|                      | k Surface (A12)        |           | Redox Depress              |              |                   |                  |                            |   |
| Sandy Mu<br>MLRA 147 | ck Mineral (S1) (LRR N | Ι,        | Iron-Manganes<br>MLRA 136) | e Masses (F  | -12) (LRR         | Ν,               |                            |   |
|                      | eyed Matrix (S4)       |           | Umbric Surface             | e (F13) (MLI | RA 136, 12        | 2)               |                            |   |
| Sandy Gle            |                        |           | Piedmont Floor             |              |                   |                  | <sup>3</sup> Indicators of | hydrophytic vegetation and                          |
|                      | Matrix (S6)            |           |                            |              |                   |                  |                            | drology must be present,<br>sturbed or problematic. |
|                      |                        |           | Red Parent Ma              | terial (F2T) | (IVILKA 12        | 7, 147)          |                            |   |
| Restrictive L        | ayer (if observed):    |           |                            |              |                   |                  |                            |   |
| Туре:                |                        |           |                            |              |                   |                  |                            |   |
| Depth (inc           | hes):                  |           |                            |              |                   |                  | Hydric Soil Present?       | Yes 🔿 No 🖲  |
| Remarks:             | , .                    |           |                            |              |                   |                  |                            |   |
| Kennarks.            |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
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|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |
|                      |                        |           |                            |              |                   |                  |                            |   |

| Project/Site: Telesto Solar Project                           | City/County:                              | Cecilia/Hardin      | Sar   | <b>te:</b> 24-F€ | e: 24-Feb-21 |            |  |
|---|---|---------------------|---|------------------|--------------|------------|--|
| Applicant/Owner: 7x Energy                                    |   | State: KY           | Sampling  | Point:           | D            | -034       |  |
| Investigator(s): J. Stelly and C. Hoffmann                    | Section, Tow                              | nship, Range: S     | т   |                  | R            |            |  |
| Landform (hillslope, terrace, etc.):                          | Local relief (co                          | ncave, convex, none | ):  | Slope:           | 0.0          | %/°        |  |
| Subregion (LRR or MLRA): LRR N Lat.:                          | 37.69069                                  | Long.:              | -85.93723   |                  | Datum:       | WGS 1984   |  |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes |   |                     | NWI classificati  | on: PUB          | Hh           |            |  |
|   | ear? Yes<br>ly disturbed?<br>problematic? | Are "Normal Circ    | olain in Remarks.)<br>cumstances" prese<br>ain any answers in | ent? Y           |              | No 〇       |  |
| Summary of Findings - Attach site map showing s               | ampling po                                | oint locations, t   | transects, im   | portan           | t featu      | ures, etc. |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes O<br>Yes O<br>Yes O | No •<br>No •<br>No • | Is the Sampled Area within a Wetland? | Yes 🖲 No 🔿 |
|---|-------------------------|----------------------|---------------------------------------|------------|
| Remarks:  |                         |                      |                                       |            |
|   |                         |                      |                                       |            |
|   |                         |                      |                                       |            |
|   |                         |                      |                                       |            |

| Wetland Hydrology Indicate                         | ors:                    |       |         |  |                | Secondary Indicators (minimum of two required) |
|--|-------------------------|-------|---------|--|----------------|--|
| Primary Indicators (minimu                         | m of one                | requi | red; c  | heck all that apply)                         |                | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                         |       |         | True Aquatic Plants (B14)                    |                | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                         |       |         | Hydrogen Sulfide Odor (C1)                   |                | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                         |       |         | Oxidized Rhizospheres along Living Roots     | (C3)           | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                         |       |         | Presence of Reduced Iron (C4)                |                | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                         |       |         | Recent Iron Reduction in Tilled Soils (C6)   |                | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                         |       |         | Thin Muck Surface (C7)                       |                | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                         |       |         | Other (Explain in Remarks)                   |                | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                         |       |         |  |                | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | l Imagery (             | B7)   |         |  |                | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          |                         |       |         |  |                | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                         |       |         |  |                | FAC-neutral Test (D5)                          |
| Field Observations:                                | 0                       |       | $\sim$  |  |                |  |
| Surface Water Present?                             | Yes $\bigcirc$          | No    | $\odot$ | Depth (inches):                              |                |  |
| Water Table Present?                               | $_{\rm Yes} \bigcirc$   | No    | ۲       | Depth (inches):                              |                | ology Present? Yes 🔿 No 🖲                      |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes}$ $\bigcirc$ | No    | ullet   | W Depth (inches):                            | etland Hydr    | ology Present? Yes 🔾 No 🖲                      |
|  | eam gaug                | ge, m | onito   | ing well, aerial photos, previous inspection | ons), if avail | able:  |
|  |                         |       |         |  |                |  |
| Remarks:   |                         |       |         |  |                |  |
|  |                         |       |         |  |                |  |
|  |                         |       |         |  |                |  |
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|  |                         |       |         |  |                |  |
|  |                         |       |         |  |                |  |
|  |                         |       |         |  |                |  |

|  | Dominant<br>Species? |             |           | Sampling Point: <u>D-034</u> |  |  |
|--|----------------------|-------------|-----------|------------------------------|--|--|
|  | Absolute             | Re          | I.Strat.  | Indicator                    | Dominance Test worksheet:  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |             | ver       | Status                       | Number of Dominant Species   |  |
| 1. Acer nigrum   | 50                   |             | 58.8%     | FACU                         | That are OBL, FACW, or FAC: (A)  |  |
| 2. Celtis occidentalis                                     | 30                   |             | 35.3%     | FACU                         | Total Number of Dominant   |  |
| 3. Ulmus americana   |                      |             | 5.9%      | FACW                         | Species Across All Strata: <u>2</u> (B)  |  |
| 4  | -                    |             | 0.0%      |                              | Dereent of dominant Species  |  |
| 5  |                      |             | 0.0%      |                              | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |  |
| 6  |                      |             | 0.0%      |                              |  |  |
| 7  | _                    |             | 0.0%      |                              | Prevalence Index worksheet:  |  |
| 8  |                      | Ш_<br>-     | 0.0%      |                              | Total % Cover of: Multiply by:   |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 85                   | = 10        | tal Cove  | r                            | OBL species x 1 =  |  |
| 1  |                      |             | 0.0%      |                              | <b>FACW species</b> $5 \times 2 = 10$  |  |
| 2  |                      |             | 0.0%      |                              | FAC species $0 \times 3 = 0$   |  |
| 3  | _                    |             | 0.0%      |                              | FACU species x 4 =   |  |
| 4.   | 0                    |             | 0.0%      |                              | UPL species x 5 =  |  |
| 5  | -                    |             | 0.0%      |                              | Column Totals: <u>85</u> (A) <u>330</u> (B)  |  |
| 6.   | _                    |             | 0.0%      |                              | Prevalence Index = B/A = 3.882   |  |
| 7  | -                    |             | 0.0%      |                              |  |  |
| 8  |                      |             | 0.0%      |                              | Hydrophytic Vegetation Indicators:   |  |
| 9.   | _                    |             | 0.0%      |                              | Rapid Test for Hydrophytic Vegetation  |  |
| 10.  |                      |             | 0.0%      |                              | $\Box  \text{Dominance Test is } > 50\%$   |  |
|  |                      | <br>= To    | tal Cove  | r                            | □ Prevalence Index is $\leq 3.0^{-1}$  |  |
| <u>Shrub Stratum</u> (Plot size:)                          |                      |             | 0.0%      |                              | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |  |
| 1  |                      |             | 0.0%      |                              | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2  |                      |             | 0.0%      |                              | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |
| 3  |                      |             | 0.0%      |                              | be present, unless disturbed or problematic.   |  |
| 4  |                      |             | 0.0%      |                              | Definition of Vegetation Strata:   |  |
| 5  | 0                    |             | 0.0%      |                              | Four Vegetation Strata:  |  |
| 6  | 0                    |             | 0.0%      |                              | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |  |
| 7  |                      | ייי<br>דס – | tal Cove  |                              | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |  |
| Herb Stratum (Plot size:)                                  |                      | _ 10        |           | I                            | Sapling/shrub stratum – Consists of woody plants, excluding  |  |
| 1  | 0                    |             | 0.0%      | ·                            | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |  |
| 2  | 0                    |             | 0.0%      |                              | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |  |
| 3  | 0                    |             | 0.0%      |                              | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |
| 4  | 0                    |             | 0.0%      |                              | in height.   |  |
| 5  | 0                    |             | 0.0%      |                              |  |  |
| 6  | 0                    |             | 0.0%      |                              | Five Vegetation Strata:  |  |
| 7  |                      |             | 0.0%      |                              | Tree - Woody plants, excluding woody vines, approximately 20   |  |
| 8  | 0                    |             | 0.0%      |                              | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).                                    |  |
| 9  | 0                    |             | 0.0%      |                              | Sapling stratum – Consists of woody plants, excluding woody  |  |
| 10   |                      |             | 0.0%      |                              | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |  |
| 11   |                      |             | 0.0%      |                              | Shrub stratum – Consists of woody plants, excluding woody  |  |
| 12   | 0                    |             | 0.0%      |                              | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |
| <u>Woody Vine Stratum</u> (Plot size:)                     |                      | = 10        | tal Covei | ſ                            | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |
| 1  | 0                    | $\Box$      | 0.0%      |                              | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1         |  |
| 2  | 0                    |             | 0.0%      |                              | m) in height.  |  |
| 3  | 0                    |             | 0.0%      |                              | Woody vines – Consists of all woody vines, regardless of   |  |
| 4  |                      |             | 0.0%      |                              | height.  |  |
| 5  | 0                    |             | 0.0%      |                              | Hydrophytic  |  |
| 6  | 0                    |             | 0.0%      |                              | Vegetation   |  |
|  | 0                    | = To        | otal Cove | r                            | Present? Yes V No V  |  |
| Remarks: (Include photo numbers here or on a separate shee | ot )                 |             |           |                              |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Descri            | iption: (Describe to              | the depth ne | eded to document           | t the indica  | ator or cor       | nfirm the a            | absence of indicators.)                     |   |  |  |  |
|---------------------------|-----------------------------------|--------------|----------------------------|---------------|-------------------|------------------------|---|---|--|--|--|
| Depth                     | Matrix                            |              |                            |               |                   |                        | —   |   |  |  |  |
| (inches)                  | Color (moist)                     |              | Color (moist)              | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                                     | Remarks   |  |  |  |
| 0-21                      | 10YR 3/1                          | 100          |                            |               |                   |                        | Loam  |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
| -                         |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               | ·                 |                        |   |   |  |  |  |
|                           | . <u> </u>                        |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Reduce | ed Matrix, CS=Covere       | ed or Coate   | d Sand Gra        | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma                  |   |  |  |  |
| Hydric Soil I             | ndicators:                        |              |                            |               |                   |                        | Indicators for Proble                       | matic Hydric Soils <sup>3</sup> :                     |  |  |  |
| Histosol (A               | 41)                               |              | Dark Surface (             | S7)           |                   |                        | 2 cm Muck (A10)                             |   |  |  |  |
| Histic Epip               | pedon (A2)                        |              | Polyvalue Belov            | w Surface (   | S8) (MLRA         | 147,148)               |   |   |  |  |  |
| Black Hist                |                                   |              | Thin Dark Surfa            | ace (S9) (M   | LRA 147, 1        | 48)                    | Coast Prairie Redo<br>(MLRA 147,148)        | X (A16)   |  |  |  |
|                           | Sulfide (A4)                      |              | Loamy Gleyed               |               |                   |                        | Piedmont Floodpla                           | in Soils (F19)  |  |  |  |
| _                         | Layers (A5)                       |              | Depleted Matri             |               |                   |                        | (MLRA 136, 147)                             |   |  |  |  |
| 2 cm Mucl                 | k (A10) (LRR N)                   |              | Redox Dark Su              |               |                   |                        | Very Shallow Dark                           | Surface (TF12)  |  |  |  |
| Depleted I                | Below Dark Surface (A             | 11)          | Depleted Dark              |               | )                 |                        | Other (Explain in F                         | Remarks)  |  |  |  |
| Thick Dark                | k Surface (A12)                   |              | Redox Depress              |               |                   |                        |   |   |  |  |  |
| Sandy Mu<br>MLRA 147      | ck Mineral (S1) (LRR N<br>7, 148) | Ι,           | Iron-Manganes<br>MLRA 136) |               |                   |                        |   |   |  |  |  |
| Sandy Gle                 | eyed Matrix (S4)                  |              | Umbric Surface             | e (F13) (ML   | RA 136, 12        | 2)                     | 3   | · · · ·   |  |  |  |
| Sandy Red                 | dox (S5)                          |              | Piedmont Floo              | dplain Soils  | (F19) (MLR        | A 148)                 | <sup>3</sup> Indicators of r<br>wetland hyd | nydrophytic vegetation and<br>rology must be present, |  |  |  |
| Stripped N                | Aatrix (S6)                       |              | Red Parent Ma              | iterial (F21) | (MLRA 127         | ', 147)                |   | turbed or problematic.                                |  |  |  |
| Postrictive   ;           | ayer (if observed):               |              |                            |               |                   |                        |   |   |  |  |  |
| Type:                     | ayer (il observed):               |              |                            |               |                   | İ                      |   |   |  |  |  |
| •••••                     | hes):                             |              |                            |               |                   |                        | Hydric Soil Present?                        | Yes 🔿 No 🖲  |  |  |  |
| • •                       | les).                             |              |                            |               |                   |                        | -   |   |  |  |  |
| Remarks:                  |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |
|                           |                                   |              |                            |               |                   |                        |   |   |  |  |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampl                                    | ling Date: 24-Fe | ng Date: 24-Feb-21 |  |  |
|--|------------------|---------------------|--|------------------|--------------------|--|--|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Po                              | int: D-          | 035                |  |  |
| Investigator(s): J. Stelly and C. Hoffmann   | Section, Tow     | nship, Range: S     | т  | R                |                    |  |  |
| Landform (hillslope, terrace, etc.):   | Local relief (co | ncave, convex, none | ):                                       | Slope:0.0        | %/°                |  |  |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.6907          | Long.:              | -85.93732                                | Datum:           | WGS 1984           |  |  |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes  |                  |                     | NWI classification:                      | PUBHh            |                    |  |  |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes 🔍       |                     | lain in Remarks.)<br>:umstances" present | ? Yes 🖲          | No O               |  |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | problematic?     | (If needed, expl    | ain any answers in R                     | emarks.)         |                    |  |  |
|  |                  |                     |  |                  | _                  |  |  |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |  |  |
|---------------------------------|-------|------|---------------------|------------|--|--|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🖲 No 🔾 |  |  |
| Wetland Hydrology Present?      | Yes 🖲 | No O | within a Wetland?   |            |  |  |
| Remarks:                        |       |      |                     |            |  |  |
| Wet-15                          |       |      |                     |            |  |  |
|                                 |       |      |                     |            |  |  |
|                                 |       |      |                     |            |  |  |

| Wetland Hydrology Indicators:                                     |                   |   | Secondary Indicators (minimum of two required) |
|---|-------------------|---|--|
| Primary Indicators (minimum of                                    | one required;     | check all that apply)                         | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                   | True Aquatic Plants (B14)                     | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)   |                   | Hydrogen Sulfide Odor (C1)                    | Drainage Patterns (B10)                        |
| Saturation (A3)   |                   | Oxidized Rhizospheres along Living Roots (C3) | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                   | Presence of Reduced Iron (C4)                 | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  |                   | Recent Iron Reduction in Tilled Soils (C6)    | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   |                   | Thin Muck Surface (C7)                        | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)   |                   | Other (Explain in Remarks)                    | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                   |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Ima                                  | gery (B7)         |   | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)                                       |                   |   | Microtopographic Relief (D4)                   |
| 🗌 Aquatic Fauna (B13)   |                   |   | ✓ FAC-neutral Test (D5)                        |
| Field Observations:   |                   |   |  |
| Surface Water Present? Yes  | ● No ○            | Depth (inches):                               |  |
| Water Table Present? Yes  | ○ <sub>No</sub> ● | Depth (inches):                               | Hydrology Present? Yes $\odot$ No $\bigcirc$   |
|   |                   |   |  |
| Saturation Present? (includes capillary fringe) Yes               | ○ <sub>No</sub> ⊙ | Depth (inches):                               | Hydrology Present? Yes 🔍 No 🔾                  |
| (includes capillary fringe) Yes                                   |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes                                   |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes                                   |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |
| (includes capillary fringe) Yes<br>Describe Recorded Data (stream |                   | Depth (inches):                               | 5 05   |

|  | Dominant<br>Species? |               |          |           | Sampling Point: <u>D-035</u>   |  |  |
|--|----------------------|---------------|----------|-----------|--|--|--|
|  | Absolute             | Rel           | Strat.   | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover              |               |          | Status    | Number of Dominant Species   |  |  |
| 1. Acer rubrum   | 50                   |               | 55.6%    | FAC       | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis laevigata  | 20                   |               | 22.2%    | FACW      | Total Number of Dominant   |  |  |
| 3. Ulmus americana   | 20                   |               | 22.2%    | FACW      | Species Across All Strata:(B)  |  |  |
| 4  |                      |               | 0.0%     |           | Demonst of dominant Crossics   |  |  |
| 5  |                      |               | 0.0%     |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)                                     |  |  |
| 6  |                      |               | 0.0%     |           |  |  |  |
| 7  |                      |               | 0.0%     |           | Prevalence Index worksheet:  |  |  |
| 8  |                      |               | 0.0%     |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90                   | = Tot         | al Cover |           | 0BL species x 1 =  |  |  |
| 1  | 0                    |               | 0.0%     |           | FACW species $40$ x 2 = $80$   |  |  |
| 2.   |                      |               | 0.0%     |           | FAC species x 3 =50  |  |  |
| 3  |                      |               | 0.0%     |           | FACU species $0 \times 4 = 0$  |  |  |
| 4  |                      |               | 0.0%     |           | UPL species x 5 =  |  |  |
| 5  |                      |               | 0.0%     |           | Column Totals: (A) (B)   |  |  |
| 6.   | -                    |               | 0.0%     |           | Prevalence Index = B/A = 2.556   |  |  |
| 7  |                      |               | 0.0%     |           |  |  |  |
| 8  | _                    |               | 0.0%     |           | Hydrophytic Vegetation Indicators:   |  |  |
| 9.   | _                    |               | 0.0%     |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 10.  |                      | $\square$     | 0.0%     |           | Dominance Test is > 50%  |  |  |
|  |                      | = Tot         | al Cover |           | ✓ Prevalence Index is $\leq 3.0^{-1}$  |  |  |
| Shrub Stratum (Plot size:)                                 | 0                    |               | 0.0%     |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                 |  |  |
| 1  |                      |               | 0.0%     |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 2  |                      |               | 0.0%     |           |  |  |  |
| 3  |                      |               |          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |  |  |
| 4  |                      |               | 0.0%     |           | Definition of Vegetation Strata:   |  |  |
| 5  | 0                    |               | 0.0%     |           | Four Vegetation Strata:  |  |  |
| 6  |                      |               | 0.0%     |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |  |  |
| 7  | 0                    |               | 0.0%     |           | (7.6 cm) or more in diameter at breast height (DBH), regardless  |  |  |
| Herb Stratum (Plot size:)                                  |                      | = 10t         | al Cover |           | of height.<br>Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 1  | 0                    |               | 0.0%     |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |  |  |
| 2  | 0                    |               | 0.0%     |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 3  | 0                    |               | 0.0%     |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0                    |               | 0.0%     |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.                                       |  |  |
| 5  | 0                    |               | 0.0%     |           |  |  |  |
| 6  |                      |               | 0.0%     |           | Five Vegetation Strata:  |  |  |
| 7  |                      |               | 0.0%     |           | Tree - Woody plants, excluding woody vines, approximately 20   |  |  |
| 8  | 0                    |               | 0.0%     |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |  |  |
| 9  | 0                    |               | 0.0%     |           | diameter at breast height (DBH).<br>Sapling stratum – Consists of woody plants, excluding woody                    |  |  |
| 10   | 0                    |               | 0.0%     |           | vines, approximately 20 ft (6 m) or more in height and less  |  |  |
| 11   | 0                    |               | 0.0%     |           | than 3 in. (7.6 cm) DBH.   |  |  |
| 12   | 0                    | $\square_{-}$ | 0.0%     |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height. |  |  |
| Woody Vine Stratum (Plot size:)                            | 0                    | = Tot         | al Cover |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |  |  |
| 1  | 0                    |               | 0.0%     |           | including herbaceous vines, regardless of size, and woody  |  |  |
| 2.   | 0                    |               | 0.0%     |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |  |  |
| 3  |                      |               | 0.0%     |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 4  | -                    |               | 0.0%     |           | height.  |  |  |
| 5  | 0                    |               | 0.0%     |           |  |  |  |
| 6  | 0                    |               | 0.0%     |           | Hydrophytic<br>Vegetation  |  |  |
| · · · · · · · · · · · · · · · · · · ·                      | 0                    | = Tot         | al Cove  | -         | Present? Yes No  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |                      |               |          |           |  |  |  |

| Profile Desci | ription: (Describe to                        | the depth   | needed to docume     | nt the indic  | cator or co  | nfirm the a            | absence of indicators.)  |                                    |  |  |
|---------------|--|-------------|----------------------|---------------|--------------|------------------------|--|------------------------------------|--|--|
| Depth         | Matrix                                       |             |                      | edox Featu    | 1            |                        |  |                                    |  |  |
| (inches)      | Color (moist)                                | %           | Color (moist)        | %             | Tvpe         | Loc <sup>2</sup>       | Texture  | Remarks                            |  |  |
| 0-21          | 10YR 3/1                                     | 85          | 5YR 4/6              | 15            | C            | M                      | Loam   |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
| -             |  |             | -                    |               |              |                        |  | -                                  |  |  |
|               |  |             |                      |               |              |                        |  | ·                                  |  |  |
|               | <u>.                                    </u> |             |                      |               |              |                        |  | ·                                  |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      | _             |              |                        |  |                                    |  |  |
|               | · ·  | on. RM=Redu | uced Matrix, CS=Cove | ered or Coate | ed Sand Gra  | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M  | atrix                              |  |  |
| Hydric Soil   | Indicators:                                  |             |                      |               |              |                        | Indicators for Proble  | ematic Hydric Soils <sup>3</sup> : |  |  |
| Histosol (    |  |             | Dark Surface         | (S7)          |              |                        | 2 cm Muck (A10)  | (MI RA 147)                        |  |  |
| Histic Epi    | pedon (A2)                                   |             | Polyvalue Bel        | ow Surface    | (S8) (MLRA   | 147,148)               | ,  | . ,                                |  |  |
| Black His     | tic (A3)                                     |             | Thin Dark Su         | rface (S9) (N | MLRA 147, 1  | 48)                    | Coast Prairie Redo<br>(MLRA 147,148)                                   | DX (A16)                           |  |  |
| Hydroger      | n Sulfide (A4)                               |             | Loamy Gleye          | d Matrix (F2  | )            |                        | Piedmont Floodpl   | ain Soils (E10)                    |  |  |
| Stratified    | Layers (A5)                                  |             | Depleted Mat         | rix (F3)      |              |                        | (MLRA 136, 147)  |                                    |  |  |
| 🗌 2 cm Muc    | :k (A10) (LRR N)                             |             | Redox Dark S         | Surface (F6)  |              |                        | Very Shallow Dar   | k Surface (TF12)                   |  |  |
| Depleted      | Below Dark Surface (A                        | .11)        | Depleted Dar         | k Surface (F  | 7)           |                        | Other (Explain in  |                                    |  |  |
|               | rk Surface (A12)                             | ,           | Redox Depres         | ssions (F8)   |              |                        |  | Refinal KS)                        |  |  |
|               | uck Mineral (S1) (LRR N                      | d           | Iron-Mangan          | ese Masses    | (F12) (LRR   | N,                     |  |                                    |  |  |
| MLRA 14       | 7, 148)                                      | ν,          | MLRA 136)            |               | . , .        |                        |  |                                    |  |  |
| Sandy Gl      | eyed Matrix (S4)                             |             | Umbric Surfa         | ce (F13) (M   | LRA 136, 12  | 22)                    | 2  |                                    |  |  |
| Sandy Re      |  |             | Piedmont Flo         | odplain Soils | s (F19) (MLI | RA 148)                | <sup>3</sup> Indicators of   | hydrophytic vegetation and         |  |  |
|               | Matrix (S6)                                  |             | Red Parent M         |               |              |                        | wetland hydrology must be present,<br>unless disturbed or problematic. |                                    |  |  |
|               |  |             |                      | -             |              |                        |  |                                    |  |  |
| Restrictive L | ayer (if observed):                          |             |                      |               |              |                        |  |                                    |  |  |
| Туре:         |  |             |                      |               |              |                        |  |                                    |  |  |
| Depth (inc    | :hes):                                       |             |                      |               |              |                        | Hydric Soil Present?   | Yes 🖲 No 🔾                         |  |  |
| Remarks:      |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
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|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |
|               |  |             |                      |               |              |                        |  |                                    |  |  |

| Project/Site: Telesto Solar Project                          | City/County:                             | Cecilia/Hardin      | Samplin   | g Date: 24-Feb-21     |
|--|--|---------------------|---|-----------------------|
| Applicant/Owner: 7x Energy                                   |  | State: KY           | Sampling Poin   | t: D-036              |
| Investigator(s): J. Stelly and C. Hoffmann                   | Section, Town                            | nship, Range: S     | т   | R                     |
| Landform (hillslope, terrace, etc.):                         | Local relief (co                         | ncave, convex, none | ): S  | lope: % / °           |
| Subregion (LRR or MLRA): LRR N Lat.:                         | 37.69073                                 | Long.:              | -85.93612   | Datum: WGS 1984       |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes) |  |                     | NWI classification:   | N/A                   |
|  | ear? Yes<br>ly disturbed?<br>roblematic? | Are "Normal Circ    | lain in Remarks.)<br>cumstances" present?<br>ain any answers in Rer | Yes 💿 No 🔾<br>narks.) |
| Summary of Findings - Attach site map showing s              | ampling po                               | int locations, t    | transects, impoi  | tant features, etc.   |

| Hydrophytic Vegetation Present? | Yes O                   | No   |                     |                              |
|---------------------------------|-------------------------|------|---------------------|------------------------------|
| Hydric Soil Present?            | $Yes \bigcirc$          | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\bigcirc$ |
| Wetland Hydrology Present?      | $_{\rm Yes}$ $\bigcirc$ | No 🖲 | within a Wetland?   |                              |
| Remarks:                        |                         |      |                     |                              |
|                                 |                         |      |                     |                              |
|                                 |                         |      |                     |                              |
|                                 |                         |      |                     |                              |

| Wetland Hydrology Indicate  | ors:                    |                      |   | Secondary Indicators (minimum of two required)  |
|---|-------------------------|----------------------|---|---|
| Primary Indicators (minimu  | um of one               | required;            | check all that apply)   | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                         |                      | True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)   |                         |                      | Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)   |
| Saturation (A3)   |                         |                      | Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Water Marks (B1)  |                         |                      | Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  |                         |                      | Recent Iron Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                         |                      | Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)   |                         |                      | Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  |                         |                      |   | Geomorphic Position (D2)  |
| Inundation Visible on Aeria   | al Imagery (            | B7)                  |   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | )                       |                      |   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   |                         |                      |   | FAC-neutral Test (D5)   |
| Field Observations:   | 0                       | 0                    |   |   |
| Surface Water Present?  | Yes $\bigcirc$          | No 🔍                 | Depth (inches):   |   |
| Water Table Present?  | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):   |   |
| Saturation Present?<br>(includes capillary fringe)  | $_{\rm Yes} \bigcirc$   | No 🖲                 | Wetlan<br>Depth (inches):   | d Hydrology Present? Yes 🔾 No 👻   |
| Describe Recorded Data (st  | tream gauç              | ge, monito           | ring well, aerial photos, previous inspections),  | if available:   |
|   |                         |                      |   |   |
| Remarks:  |                         |                      |   |   |
|   |                         |                      |   |   |
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|   |                         |                      |   |   |
|   |                         |                      |   |   |
| Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|  |                  | Dominant                   |           | Sampling Point: <b>D-036</b>   |
|--|------------------|----------------------------|-----------|--|
|  | Absolute         | - Species? -<br>Rel.Strat. | Indicator | Dominance Test worksheet:  |
| _Tree Stratum (Plot size:)                                 | % Cover          | Cover                      | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 20               | ✓ 100.0%                   | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2  | 0                | 0.0%                       |           | Total Number of Dominant   |
| 3  | 0                | 0.0%                       |           | Species Across All Strata: <u>2</u> (B)  |
| 4  | 0                | 0.0%                       |           |  |
| 5  | 0                | 0.0%                       |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |
| 6  | 0                | 0.0%                       |           |  |
| 7  | 0                | 0.0%                       |           | Prevalence Index worksheet:  |
| 8  | 0                | 0.0%                       |           | Total % Cover of: Multiply by:   |
|  | 20 =             | = Total Cover              |           | OBL species x 1 =  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |                  |                            |           | FACW species $0 \times 2 = 0$  |
| 1  |                  | 0.0%                       |           | FAC species $0 \times 3 = 0$   |
| 2  |                  | 0.0%                       |           | FACU species x 4 =280  |
| 3  | -                | 0.0%                       |           | UPL species $0 \times 5 = 0$   |
| 4  |                  | 0.0%                       |           | Column Totals: 70 (A) 280 (B)  |
| 5  |                  | 0.0%                       |           | $\frac{1}{200}$  |
| 6  | -                | 0.0%                       |           | Prevalence Index = $B/A = 4.000$   |
| 7  |                  | 0.0%                       |           | Hydrophytic Vegetation Indicators:   |
| 8  |                  | 0.0%                       |           | Rapid Test for Hydrophytic Vegetation  |
| 9  | 0                | 0.0%                       |           | Dominance Test is > 50%  |
| 10   | 0                | 0.0%                       |           | Prevalence Index is $\leq$ 3.0 <sup>1</sup>  |
| Shrub Stratum (Plot size:)                                 | :                | = Total Cover              |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0                | 0.0%                       |           | data in Remarks or on a separate sheet)  |
| 2  | 0                | 0.0%                       |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  | 0                | 0.0%                       |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |                  | 0.0%                       |           | be present, unless disturbed or problematic.   |
| 5  | 0                | 0.0%                       |           | Definition of Vegetation Strata:   |
| 6  |                  | 0.0%                       |           | Four Vegetation Strata:  |
| 7  | 0                | 0.0%                       |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum (Plot size:)                                  | 0 :              | = Total Cover              |           | of height.   |
| 1. Echinochioa crusgalli                                   | 50               | ✓ 100.0%                   | FACU      | Sapling/shrub stratum – Consists of woody plants, excluding  |
|  | 0                | 0.0%                       | TACO      | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  | 0                | 0.0%                       |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.     |
| 3  | 0                | 0.0%                       |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4  | 0                | 0.0%                       |           | in height.   |
| 5<br>6   | 0                | 0.0%                       |           |  |
|  | 0                | 0.0%                       |           | Five Vegetation Strata:  |
| 7  | 0                | 0.0%                       |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  | 0                | 0.0%                       |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| 9  | 0                | 0.0%                       |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   |                  | 0.0%                       |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11   | 0                | 0.0%                       |           | Shrub stratum – Consists of woody plants, excluding woody  |
| 12   | <u>0</u><br>50 : | = Total Cover              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| _Woody Vine Stratum (Plot size: )                          |                  |                            |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody         |
| 1  | 0                | 0.0%                       |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  | 0                | 0.0%                       |           | m) in height.  |
| 3  | 0                | 0.0%                       |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  | 0                | 0.0%                       |           |  |
| 5  | 0                | 0.0%                       |           | Hydrophytic  |
| 6  | 0                | 0.0%                       |           | Vegetation   |
|  | 0                | = Total Cove               | r         | Present? Yes V NO V  |
| Remarks: (Include photo numbers here or on a separate shee | + )              |                            |           |  |

ep

| Profile Descri            | iption: (Describe to              | the depth  | needed to document     | the indic    | ator or co   | nfirm the a           | absence of indicators.)              |                                   |  |
|---------------------------|-----------------------------------|------------|------------------------|--------------|--------------|-----------------------|--------------------------------------|-----------------------------------|--|
| Depth                     | Matrix                            |            |                        | dox Featu    |              |                       |                                      |                                   |  |
| (inches)                  | Color (moist)                     | %          | Color (moist)          | _%           |              | Loc <sup>2</sup>      | Texture                              | Remarks                           |  |
| 0-21                      | 10YR 3/3                          | 100        |                        |              |              |                       | Loam                                 |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
| <b>-</b>                  | ь                                 |            |                        |              |              |                       |                                      |                                   |  |
|                           | · ·                               |            | ·                      |              |              |                       |                                      |                                   |  |
|                           | ·                                 |            | ·                      |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           | u                                 |            |                        |              |              |                       | ,                                    |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Redu | uced Matrix, CS=Covere | ed or Coate  | d Sand Gra   | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma           | atrix                             |  |
| Hydric Soil I             | ndicators:                        |            |                        |              |              |                       | Indicators for Proble                | matic Hydric Soils <sup>3</sup> : |  |
| Histosol (A               | A1)                               |            | Dark Surface (S        | 57)          |              |                       | 2 cm Muck (A10)                      | -                                 |  |
| Histic Epip               | pedon (A2)                        |            | Polyvalue Belov        | v Surface (  | S8) (MLRA    | 147,148)              |                                      |                                   |  |
| Black Hist                | ic (A3)                           |            | Thin Dark Surfa        | ace (S9) (M  | LRA 147, 1   | 48)                   | Coast Prairie Redo<br>(MLRA 147,148) | ox (A16)                          |  |
| Hydrogen                  | Sulfide (A4)                      |            | Loamy Gleyed I         | Matrix (F2)  |              |                       |                                      |                                   |  |
|                           | Layers (A5)                       |            | Depleted Matrix        |              |              |                       | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)                   |  |
|                           | k (A10) (LRR N)                   |            | Redox Dark Sur         |              |              |                       | Very Shallow Dark                    | Surface (TE12)                    |  |
|                           | Below Dark Surface (A             | 11)        | Depleted Dark          | . ,          | 7)           |                       |                                      |                                   |  |
|                           | k Surface (A12)                   | 11)        | Redox Depressi         |              | )            |                       | Other (Explain in                    | Remarks)                          |  |
| _                         |                                   |            | Iron-Manganes          |              | F12) (I DD I | M                     |                                      |                                   |  |
| MLRA 147                  | ck Mineral (S1) (LRR N<br>(, 148) | 1,         | MLRA 136)              | e masses (   |              | Ν,                    |                                      |                                   |  |
| _                         | eyed Matrix (S4)                  |            | Umbric Surface         | (F13) (ML    | RA 136, 12   | 2)                    |                                      |                                   |  |
|                           |                                   |            | Piedmont Flood         |              |              |                       | <sup>3</sup> Indicators of           | nydrophytic vegetation and        |  |
| Sandy Red                 |                                   |            |                        |              |              |                       | wetland hyd                          | rology must be present,           |  |
|                           | Matrix (S6)                       |            | Red Parent Mat         | terial (F21) | (MLRA 12)    | 7, 147)               | unless disturbed or problematic.     |                                   |  |
| Restrictive La            | ayer (if observed):               |            |                        |              |              |                       |                                      |                                   |  |
| Туре:                     |                                   |            |                        |              |              |                       |                                      |                                   |  |
| Depth (incl               | nes):                             |            |                        |              |              |                       | Hydric Soil Present?                 | Yes 🔾 No 🖲                        |  |
| Remarks:                  |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |  |

| Project/Site: Telesto Solar Project                           | City/County:                             | Cecilia/Hardin      | Samplin   | ng Date: 24-Feb | -21         |
|---|--|---------------------|---|-----------------|-------------|
| Applicant/Owner: 7x Energy                                    |  | State: KY           | Sampling Poin   | nt: D-O         | 37          |
| Investigator(s): J. Stelly and C. Hoffmann                    | Section, Tow                             | nship, Range: S     | т   | R               |             |
| Landform (hillslope, terrace, etc.):                          | Local relief (co                         | ncave, convex, none | ):S   | Slope: '        | %/0.0_°     |
| Subregion (LRR or MLRA): LRR N Lat.:                          | 37.69239                                 | Long.:              | -85.93253   | Datum:          | WGS 1984    |
| Soil Map Unit Name: Sonora silt loam (6 to 12 percent slopes) |  |                     | NWI classification:   | N/A             |             |
|   | ear? Yes<br>ly disturbed?<br>roblematic? | Are "Normal Circ    | lain in Remarks.)<br>cumstances" present?<br>ain any answers in Ren |                 | <b>o</b> () |
| Summary of Findings - Attach site map showing s               | ampling po                               | oint locations,     | transects, impoi  | rtant featur    | es, etc.    |

| Hydrophytic Vegetation Present? | $_{\sf Yes}$ $\bigcirc$ | No 🖲 |                     |   |
|---------------------------------|-------------------------|------|---------------------|---|
| Hydric Soil Present?            | $_{ m Yes}$ $\bigcirc$  | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\textcircled{ullet}$ |
| Wetland Hydrology Present?      | $_{ m Yes} \bigcirc$    | No 🖲 | within a Wetland?   |   |
| Remarks:                        |                         |      |                     |   |
|                                 |                         |      |                     |   |
|                                 |                         |      |                     |   |
|                                 |                         |      |                     |   |

| Wetland Hydrology Indicat                                 | ors:                    |           |   | Secondary Indicators (minimum of two required) |
|---|-------------------------|-----------|---|--|
| Primary Indicators (minimu                                | um of one               | required; | check all that apply)                         | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                         |           | True Aquatic Plants (B14)                     | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                         |           | Hydrogen Sulfide Odor (C1)                    | Drainage Patterns (B10)                        |
| Saturation (A3)   |                         |           | Oxidized Rhizospheres along Living Roots (C3) | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                         |           | Presence of Reduced Iron (C4)                 | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                         |           | Recent Iron Reduction in Tilled Soils (C6)    | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                       |                         |           | Thin Muck Surface (C7)                        | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                         |           | Other (Explain in Remarks)                    | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                         |           |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | al Imagery (            | B7)       |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                 | )                       |           |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                         |           |   | FAC-neutral Test (D5)                          |
| Field Observations:                                       | 0                       |           |   |  |
| Surface Water Present?                                    | $Yes \bigcirc$          | No 🖲      | Depth (inches):                               |  |
| Water Table Present?                                      | $_{ m Yes}$ $\bigcirc$  | No 💿      | Depth (inches):                               |  |
|   |                         |           |   |  |
| Saturation Present?<br>(includes capillary fringe)        | $_{\rm Yes}$ $\bigcirc$ | No 🖲      | Depth (inches): Wetland                       | Hydrology Present? Yes 🔾 No 🖲                  |
| (includes capillary fringe)                               |                         |           | Wetland                                       |  |
| (includes capillary fringe)                               |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)                               |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |           | Depth (inches):                               |  |

| ·····, ····  |          |              | minant               |           | Sampling Point: <u>D-037</u>   |
|--|----------|--------------|----------------------|-----------|--|
|  | Absolute | Re           | ecies? -<br>I.Strat. | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |              | ver                  | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 50       |              | 66.7%                | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | <br>     |              | 26.7%                | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          |              | 6.7%<br>0.0%         | FACW      | Species Across All Strata: <u>2</u> (B)  |
| 4  |          |              | 0.0%                 |           | Percent of dominant Species  |
| 5<br>6.  |          |              | 0.0%                 |           | That Are OBL, FACW, or FAC: (A/B)  |
| 7  |          |              | 0.0%                 |           | Prevalence Index worksheet:  |
|  | 0        |              | 0.0%                 |           | Total % Cover of: Multiply by:   |
| 8  | 75       | <br>= To     | tal Cover            |           | $0\text{BL species} \qquad 0 \qquad \text{x 1} = 0$  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |          | _            |                      |           | FACW species $5 \times 2 = 10$   |
| 1  | 0        |              | 0.0%                 |           | FAC species $0 \times 3 = 0$   |
| 2  | 0        |              | 0.0%                 |           | FACU speciles $70 \times 4 = 280$  |
| 3  | 0        |              | 0.0%                 |           |  |
| 4  | -        |              | 0.0%                 |           |  |
| 5  | -        |              | 0.0%                 |           | Column Totals: (A) (B)   |
| 6  |          |              | 0.0%                 |           | Prevalence Index = $B/A = 3.867$   |
| 7  |          |              | 0.0%                 |           | Hydrophytic Vegetation Indicators:   |
| 8  |          |              | 0.0%                 |           | Rapid Test for Hydrophytic Vegetation  |
| 9  |          |              | 0.0%                 |           | Dominance Test is > 50%  |
| 10   |          | Ш_           | 0.0%                 |           | □ Prevalence Index is $\leq$ 3.0 <sup>1</sup>  |
| Shrub Stratum (Plot size:)                                 |          | = To         | tal Cover            |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0        |              | 0.0%                 |           | data in Remarks or on a separate sheet)  |
| 2  | 0        |              | 0.0%                 |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  | 0        |              | 0.0%                 |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.              |
| 4  | 0        |              | 0.0%                 |           |  |
| 5  |          |              | 0.0%                 |           | Definition of Vegetation Strata:   |
| 6  | 0        |              | 0.0%                 |           | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                     |
| 7  | 0        | $\square$    | 0.0%                 |           | (7.6 cm) or more in diameter at breast height (DBH), regardless  |
| Herb Stratum (Plot size:)                                  | 0        | = To         | tal Cover            |           | of height.   |
| 1  | 0        |              | 0.0%                 |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2  | 0        |              | 0.0%                 |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3  | 0        |              | 0.0%                 |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4  | 0        |              | 0.0%                 |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |
| 5  | 0        |              | 0.0%                 |           | ·····g···  |
| 6  |          |              | 0.0%                 |           | Five Vegetation Strata:  |
| 7  |          |              | 0.0%                 |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  | 0        |              | 0.0%                 |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                 |
| 9  | 0        |              | 0.0%                 |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   | 0        |              | 0.0%                 |           | vines, approximately 20 ft (6 m) or more in height and less  |
| 11   |          |              | 0.0%                 |           | than 3 in. (7.6 cm) DBH.<br>Shrub stratum – Consists of woody plants, excluding woody  |
| 12   |          |              | 0.0%                 |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size:)                            |          | = 10         | tal Cover            |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1  | 0        | Ш_           | 0.0%                 |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1      |
| 2  | 0        |              | 0.0%                 |           | m) in height.  |
| 3  |          |              | 0.0%                 |           | Woody vines – Consists of all woody vines, regardless of   |
| 4  | 0        |              | 0.0%                 |           | height.  |
| 5  | 0        |              | 0.0%                 |           | Hydrophytic  |
| 6  | 0        | $\square_{}$ | 0.0%                 |           | Vegetation   |
|  | 0        | = To         | tal Cove             | ·         | Present? Yes V NO 🖲  |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |              |                      |           |  |

| Profile Desc   | ription: (Describe | to the depth                                | needed to document                        | the indic | ator or coi | nfirm the a   | absence of indicators.)                            |                                    |
|--|--------------------|---|---|-----------|-------------|---|--|------------------------------------|
| Depth Matrix Redox Features  |                    |   |   |           |             |   |  |                                    |
| (inches)   | Color (moist)      |   | Color (moist)                             | %         | Tvpe        | Loc <sup>2</sup>  | Texture  | Remarks                            |
| 0-21   | 10YR 3/1           | 100   |   |           |             |   | Loam   |                                    |
|  |                    |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |
| 8  | ·                  |   |   |           |             |   |  | ·•                                 |
|  |                    |   | · · · · ·                                 |           |             |   |  |                                    |
|  | . <u> </u>         |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |
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|  |                    |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |
| <sup>1</sup> Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix |                    |   |   |           |             |   |  |                                    |
| Hydric Soil  | Indicators:        |   |   |           |             |   | Indicators for Probl                               | ematic Hydric Soils <sup>3</sup> : |
| Histosol (   | (A1)               | Dark Surface (S7)                           |   |           |             | 2 cm Muck (A10) (MLRA 147)  |  |                                    |
|  | pedon (A2)         | Polyvalue Below Surface (S8) (MLRA 147,148) |   |           |             | Coast Prairie Redox (A16)   |  |                                    |
| Black His  |                    |   | Thin Dark Surface (S9) (MLRA 147, 148)    |           |             |   | (MLRA 147,148)                                     |                                    |
| Hydrogen Sulfide (A4)     Loamy Gleyed Matrix (F2)       Stratified Layers (A5)     Depleted Matrix (F3)   |                    |   |   |           |             |   | Piedmont Floodplain Soils (F19)<br>(MLRA 136, 147) |                                    |
|  | ck (A10) (LRR N)   | Redox Dark Surface (F6)                     |   |           |             | Very Shallow Dark Surface (TF12)  |  |                                    |
| _  | Below Dark Surface | Depleted Dark Surface (F7)                  |   |           |             | Other (Explain in Remarks)  |  |                                    |
| Thick Da   |                    | ox Depressions (F8)                         |   |           |             | Remarks)  |  |                                    |
|  |                    | RN  | Iron-Manganes                             |           | F12) (LRR I | N,  |  |                                    |
| Sandy Muck Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)       MLRA 136)                                     |                    |   |   |           |             |   |  |                                    |
| Sandy Gl   | eyed Matrix (S4)   | Umbric Surface (F13) (MLRA 136, 122)        |   |           |             | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present, |  |                                    |
| Sandy Re   | edox (S5)          | Piedmont Floodplain Soils (F19) (MLRA 148)  |   |           |             |   |  |                                    |
| Stripped   | Matrix (S6)        |   | Red Parent Material (F21) (MLRA 127, 147) |           |             |   | unless disturbed or problematic.                   |                                    |
| Restrictive I  | ayer (if observed) |   |   |           |             |   |  |                                    |
| Туре:  |                    |   |   |           |             |   |  |                                    |
| ••••   | :hes):             |   |   |           |             | Hydric Soil Present? Yes 🔿 No 🔍   |  |                                    |
| Deput (incles).  |                    |   |   |           |             |   |  |                                    |
| Remarks:   |                    |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |
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|  |                    |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |
|  |                    |   |   |           |             |   |  |                                    |

| Project/Site: Telesto Solar Project                           | City/County:                              | Cecilia/Hardin      | Samplin   | g Date: 24-Feb-21             |            |
|---|---|---------------------|---|-------------------------------|------------|
| Applicant/Owner: 7x Energy                                    |   | State: KY           | Sampling Poin   | t: D-038                      |            |
| Investigator(s): J. Stelly and C. Hoffmann                    | Section, Town                             | nship, Range: S     | т   | R                             |            |
| Landform (hillslope, terrace, etc.):                          | Local relief (co                          | ncave, convex, none | ): S  | lope: <u>0.0</u> %/ <u>0.</u> | <u>0</u> ° |
| Subregion (LRR or MLRA): LRR N Lat.:                          | 37.68976                                  | Long.:              | -85.93439   | Datum: WGS 198                | 34         |
| Soil Map Unit Name: Sonora silt loam (6 to 12 percent slopes) |   |                     | NWI classification:   | N/A                           |            |
|   | ar? Yes •<br>ly disturbed?<br>roblematic? | Are "Normal Circ    | lain in Remarks.)<br>cumstances" present?<br>ain any answers in Rer | Yes 💿 No 🔾<br>narks.)         |            |
| Summary of Findings - Attach site map showing sa              | ampling po                                | int locations,      | transects, impor  | rtant features, etc           | с.         |

| Hydrophytic Vegetation Present? | $_{\sf Yes}$ $\bigcirc$ | No 🖲 |                     |   |
|---------------------------------|-------------------------|------|---------------------|---|
| Hydric Soil Present?            | $_{ m Yes}$ $\bigcirc$  | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $\textcircled{ullet}$ |
| Wetland Hydrology Present?      | $_{ m Yes} \odot$       | No 🖲 | within a Wetland?   |   |
| Remarks:                        |                         |      |                     |   |
|                                 |                         |      |                     |   |
|                                 |                         |      |                     |   |
|                                 |                         |      |                     |   |

| Wetland Hydrology Indicate                         | ors:                  |       |         |  | _        | Secondary Indicators (minimum of two required) |
|--|-----------------------|-------|---------|--|----------|--|
| Primary Indicators (minimu                         | um of one             | requ  | ired; c | heck all that apply)                               | [        | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                                 |                       |       |         | True Aquatic Plants (B14)                          | [        | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                              |                       |       |         | Hydrogen Sulfide Odor (C1)                         | [        | Drainage Patterns (B10)                        |
| Saturation (A3)                                    |                       |       |         | Oxidized Rhizospheres along Living Roots (C3)      | [        | Moss Trim Lines (B16)                          |
| Water Marks (B1)                                   |                       |       |         | Presence of Reduced Iron (C4)                      | [        | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                             |                       |       |         | Recent Iron Reduction in Tilled Soils (C6)         | [        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                |                       |       |         | Thin Muck Surface (C7)                             | [        | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                            |                       |       |         | Other (Explain in Remarks)                         | [        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                                 |                       |       |         |  | [        | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                        | al Imagery (          | B7)   |         |  | [        | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                          | )                     |       |         |  | [        | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                |                       |       |         |  | [        | FAC-neutral Test (D5)                          |
| Field Observations:                                | 0                     |       | $\sim$  |  |          |  |
| Surface Water Present?                             | Yes $\bigcirc$        | No    | $\odot$ | Depth (inches):                                    |          |  |
| Water Table Present?                               | $_{\rm Yes} \bigcirc$ | No    | ۲       | Depth (inches):                                    |          | ology Present? Yes 🔿 No 🖲                      |
| Saturation Present?<br>(includes capillary fringe) | $_{\rm Yes} \bigcirc$ | No    | ullet   | Wetland<br>Depth (inches):                         | l Hydro  | ology Present? Yes 🔾 No 🖲                      |
|  | ream gau              | ge, m | onitor  | ing well, aerial photos, previous inspections), if | f availa | ble:   |
|  |                       |       |         |  |          |  |
| Remarks:   |                       |       |         |  |          |  |
|  |                       |       |         |  |          |  |
|  |                       |       |         |  |          |  |
|  |                       |       |         |  |          |  |
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|  |                       |       |         |  |          |  |
|  |                       |       |         |  |          |  |
|  |                       |       |         |  |          |  |

|  |          | Dominant<br>—Species? |   | Sampling Point: <u>D-038</u>   |  |  |
|--|----------|-----------------------|---|--|--|--|
|  | Absolute | Rel.Strat.            | Indicator   | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                  | % Cover  |                       | Status  | Number of Dominant Species   |  |  |
| 1. Acer nigrum   | 40       | <b>✓</b> 53.3%        | FACU  | That are OBL, FACW, or FAC: (A)  |  |  |
| 2. Celtis occidentalis                                     |          | 40.0%                 | FACU  | Total Number of Dominant   |  |  |
| 3. Ulmus americana   |          | 6.7%                  | FACW  | Species Across All Strata: <u>2</u> (B)  |  |  |
| 4  | -        | 0.0%                  | ·   | Demont of deminant Crossics  |  |  |
| 5  |          | 0.0%                  |   | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |  |  |
| 6  |          | 0.0%                  |   |  |  |  |
| 7  |          | 0.0%                  |   | Prevalence Index worksheet:  |  |  |
| 8  |          | 0.0%                  |   | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |          | = Total Cove          | -   | OBL species x 1 =  |  |  |
| 1  |          | 0.0%                  |   | FACW species $5 \times 2 = 10$   |  |  |
| 2  |          | 0.0%                  |   | FAC species $0 \times 3 = 0$   |  |  |
| 3.   |          | 0.0%                  |   | FACU species x 4 =280  |  |  |
| 4.   |          | 0.0%                  |   | UPL species x 5 =  |  |  |
| 5  |          | 0.0%                  |   | Column Totals: (A) (B)   |  |  |
| 6.   | _        | 0.0%                  |   | Prevalence Index = $B/A = 3.867$   |  |  |
| 7  |          | 0.0%                  |   |  |  |  |
| 8  |          | 0.0%                  |   | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation  |  |  |
| 9  |          | 0.0%                  |   | Dominance Test is > 50%  |  |  |
| 10.  |          | 0.0%                  |   | Dominance lest is $> 50\%$<br>Prevalence Index is $\leq 3.0^{-1}$  |  |  |
|  |          | = Total Cove          |   |  |  |  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                  |   | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                 |  |  |
| 2  | 0        | 0.0%                  |   | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |  |
| 3  |          | 0.0%                  |   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4  |          | 0.0%                  |   | be present, unless disturbed or problematic.   |  |  |
| 5  | 0        | 0.0%                  |   | Definition of Vegetation Strata:   |  |  |
| 6  |          | 0.0%                  |   | Four Vegetation Strata:  |  |  |
| 7  | 0        | 0.0%                  |   | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |  |  |
| Herb Stratum (Plot size:)                                  | 0        | = Total Cove          | -   | of height.   |  |  |
|  | 0        | 0.0%                  |   | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 12   | 0        | 0.0%                  |   | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 3  | 0        | 0.0%                  |   | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 4  | 0        | 0.0%                  |   | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 5  | 0        | 0.0%                  |   | in height.   |  |  |
| 6.   | 0        | 0.0%                  |   | Fire Manadation Charter  |  |  |
| 7  |          | 0.0%                  |   | Five Vegetation Strata:  |  |  |
| 8  | _        | 0.0%                  |   | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |  |  |
| 9  | 0        | 0.0%                  |   | diameter at breast height (DBH).   |  |  |
| 10   | 0        | 0.0%                  |   | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |  |  |
| 11   | 0        | 0.0%                  |   | than 3 in. (7.6 cm) DBH.   |  |  |
| 12.  | 0        | 0.0%                  |   | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
| Woody Vine Stratum (Plot size:)                            | 0        | = Total Cove          |   | vines, approximately 3 to 20 ft (1 to 6 m) in height.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,             |  |  |
|  |          |                       | including herbaceous vines, regardless of size, and woody |  |  |  |
| 1  | 0        | 0.0%                  |   | species, except woody vines, less than approximately 3 ft (1 m) in height.   |  |  |
| 2  |          | 0.0%                  |   | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 3  |          | 0.0%                  | ·   | height.  |  |  |
| 4  |          | 0.0%                  |   |  |  |  |
| 5  | 0        | 0.0%                  |   | Hydrophytic  |  |  |
| 6  |          | = Total Cove          | r   | Vegetation<br>Present? Yes O No •  |  |  |
| Remarks: (Include photo numbers here or on a separate shee |          | 101010000             | -   | 1  |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Descri            | ption: (Describe to                    | the depth | needed to document     | the indic    | ator or co        | nfirm the a           | absence of indicators.)               |  |
|---------------------------|--|-----------|------------------------|--------------|-------------------|-----------------------|---------------------------------------|--|
| Depth                     | Matrix                                 |           |                        | dox Featu    |                   |                       |                                       |  |
| (inches)                  | Color (moist)                          | %         | Color (moist)          | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture                               | Remarks  |
| 0-21                      | 10YR 3/1                               | 100       |                        |              |                   |                       | Loam                                  |  |
|                           |  |           |                        |              |                   |                       |                                       |  |
|                           |  |           |                        |              |                   |                       |                                       |  |
|                           |  |           |                        |              | -                 |                       | ·                                     |  |
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|                           |  |           |                        |              |                   |                       |                                       |  |
|                           |  |           |                        |              |                   |                       |                                       |  |
| <sup>1</sup> Type: C=Cond | entration. D=Depletio                  | n. RM=Red | uced Matrix, CS=Covere | d or Coate   | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma            | atrix  |
| Hydric Soil I             | -                                      |           |                        |              |                   |                       | Indicators for Proble                 |  |
| Histosol (A               |  |           | Dark Surface (S        | 57)          |                   |                       |                                       | -  |
| Histic Epip               |  |           | Polyvalue Belov        | •            | S8) (MLRA         | 147.148)              | 2 cm Muck (A10)                       | (MLRA 147)   |
| Black Histi               |  |           | Thin Dark Surfa        |              |                   |                       | Coast Prairie Redo                    | ox (A16)   |
|                           | Sulfide (A4)                           |           | Loamy Gleyed I         |              |                   | ,                     | (MLRA 147,148)                        |  |
|                           | _ayers (A5)                            |           | Depleted Matrix        |              |                   |                       | Piedmont Floodpla<br>(MLRA 136, 147)  | ain Soils (F19)                                    |
|                           | (A10) (LRR N)                          |           | Redox Dark Sur         |              |                   |                       |                                       | Curface (TE12)                                     |
|                           | Below Dark Surface (A                  | 11)       | Depleted Dark          | . ,          | 7)                |                       | Very Shallow Dark                     |  |
|                           | selow Dark Surface (A<br>Surface (A12) | 11)       | Redox Depressi         |              |                   |                       | Other (Explain in                     | Remarks)   |
|                           |  |           | Iron-Manganes          |              | F12) (I RR I      | N.                    |                                       |  |
| MLRA 147                  | ck Mineral (S1) (LRR N<br>, 148)       | 4,        | MLRA 136)              | e musses (   |                   | •,                    |                                       |  |
|                           | yed Matrix (S4)                        |           | Umbric Surface         | (F13) (ML    | .RA 136, 12       | 2)                    |                                       |  |
| Sandy Rec                 |  |           | Piedmont Flood         | Iplain Soils | (F19) (MLF        | RA 148)               | <sup>3</sup> Indicators of I          | nydrophytic vegetation and                         |
| Stripped N                |  |           | Red Parent Mat         |              |                   |                       |                                       | rology must be present,<br>sturbed or problematic. |
|                           | . ,                                    |           |                        | ,            | •                 |                       |                                       |  |
| Restrictive La            | ayer (if observed):                    |           |                        |              |                   |                       |                                       |  |
| Туре:                     |  |           |                        |              |                   |                       | Hydric Soil Present?                  | Yes 🔿 No 🖲   |
| Depth (inch               | nes):                                  |           |                        |              |                   |                       | Hydric Soli Present?                  | Yes O NO O   |
| Remarks:                  |  |           |                        |              |                   |                       |                                       |  |
|                           |  |           |                        |              |                   |                       |                                       |  |
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|                           |  |           |                        |              |                   |                       |                                       |  |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Sampling I                               | Date: 24-Feb-21    |
|---|------------------|----------------------|--|--------------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Point:                          | D-039              |
| Investigator(s): J. Stelly and C. Hoffmann  | Section, Town    | nship, Range: S      | т  | R                  |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | : flat Slop                              | pe: % / °          |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.68852         | Long.:               | -85.93588                                | Datum: WGS 1984    |
| Soil Map Unit Name: Sonora silt loam (6 to 12 percent slopes)   |                  |                      | NWI classification: N/                   | Ά                  |
| Are climatic/hydrologic conditions on the site typical for this time of y Are Vegetation, Soil, or Hydrology significan | ear? Yes 🖲       |                      | lain in Remarks.)<br>umstances" present? | Yes 💿 No 🔾         |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally  | problematic?     | (If needed, expla    | in any answers in Rema                   | rks.)              |
| Summary of Findings - Attach site map showing s   | sampling po      | int locations, t     | ransects, importa                        | ant features, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------|----------------------|---------------------------------------|---|
| Remarks:  |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |

| Wetland Hydrology Indicators:          |             |   | Secondary Indicators (minimum of two required) |
|--|-------------|---|--|
| Primary Indicators (minimum of one     | required; c | heck all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                     |             | True Aquatic Plants (B14)                         | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                  |             | Hydrogen Sulfide Odor (C1)                        | Drainage Patterns (B10)                        |
| Saturation (A3)                        |             | Oxidized Rhizospheres along Living Roots (C3)     | Moss Trim Lines (B16)                          |
| Water Marks (B1)                       |             | Presence of Reduced Iron (C4)                     | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                 |             | Recent Iron Reduction in Tilled Soils (C6)        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                    |             | Thin Muck Surface (C7)                            | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                |             | Other (Explain in Remarks)                        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                     |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery ( | (B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)              |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                    |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                    | 0           |   |  |
| Surface Water Present? Yes O           | No 🖲        | Depth (inches):                                   |  |
| Water Table Present? Yes $\bigcirc$    | No 🖲        | Depth (inches):                                   | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present? Yes O              | No 🖲        | Wetland<br>Depth (inches):                        | I Hydrology Present? Yes 🔾 No 🖲                |
| Describe Recorded Data (stream gauge   | ge, monitor | ing well, aerial photos, previous inspections), i | f available:                                   |
|  |             |   |  |
| Remarks:                               |             |   |  |
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|  |             |   |  |
| Describe Recorded Data (stream gau     |             |   | f available:                                   |

|  |          | Dominant<br>– Species? |           | Sampling Point: <b>D-039</b>   |
|--|----------|------------------------|-----------|--|
|  | Absolute | Rel.Strat.             | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                  | Status    | Number of Dominant Species   |
| 1  | 0        | 0.0%                   |           | That are OBL, FACW, or FAC: (A)  |
| 2  |          | 0.0%                   |           | Total Number of Dominant   |
| 3  |          | 0.0%                   |           | Species Across All Strata: (B)   |
| 4  |          | 0.0%                   |           | Dereent of dominant Species  |
| 5  |          | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |
| 6  |          | 0.0%                   |           |  |
| 7  |          | 0.0%                   |           | Prevalence Index worksheet:  |
| 8  |          | 0.0%                   |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover          | -         | OBL species $0 \times 1 = 0$   |
| <u></u>  |          | 0.0%                   |           | FACW species $0 \times 2 = 0$  |
| 2  |          | 0.0%                   |           | FAC species $0 \times 3 = 0$   |
| 3.   |          | 0.0%                   |           | FACU species x 4 =200  |
| 4.   |          | 0.0%                   |           | UPL species $0 \times 5 = 0$   |
| 5  |          | 0.0%                   |           | Column Totals: (A) (B)   |
| 6  | _        | 0.0%                   |           | Prevalence Index = $B/A = 4.000$   |
| 7  |          | 0.0%                   |           |  |
| 8  |          | 0.0%                   |           | Hydrophytic Vegetation Indicators:   |
| 9  |          | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation  |
| 10.  |          | 0.0%                   |           | $\Box Dominance Test is > 50\%$  |
|  |          | = Total Cove           |           | Prevalence Index is $\leq 3.0^{-1}$  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 2  |          | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                   |           | be present, unless disturbed or problematic.   |
| 5  |          | 0.0%                   |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%                   |           | Four Vegetation Strata:  |
| 7.   | 0        | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover          | -         | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |
|  | 50       | 100.0%                 | FACU      | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1. Echinochioa crusgalli                                   | 0        | 0.0%                   | TACO      | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  | 0        | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4  | 0        | 0.0%                   |           | in height.   |
| 5  |          | 0.0%                   |           |  |
| 67   |          | 0.0%                   | ·         | Five Vegetation Strata:  |
| 7  |          | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |
| 8  | 0        | 0.0%                   |           | diameter at breast height (DBH).   |
| 9  | 0        | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   |          | $\square$              |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11   | 0        | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody  |
|  | <br>50 = | = Total Cove           |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum_ (Plot size:)                           |          | _                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |
| 1  | 0        | 0.0%                   |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  | 0        | 0.0%                   |           | m) in height.  |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  | 0        | 0.0%                   |           | neight.  |
| 5  | 0        | 0.0%                   |           | Hydrophytic  |
| 6  | 0        | 0.0%                   |           | Vegetation   |
|  | 0        | = Total Cove           | r         | Present? Yes Vo S  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |                        |           |  |

ep

| Profile Descri            | iption: (Describe to              | the depth  | needed to document     | the indic    | ator or co   | nfirm the a           | absence of indicators.)              |                                   |
|---------------------------|-----------------------------------|------------|------------------------|--------------|--------------|-----------------------|--------------------------------------|-----------------------------------|
| Depth                     | Matrix                            |            |                        | dox Featu    |              |                       |                                      |                                   |
| (inches)                  | Color (moist)                     | %          | Color (moist)          | _%           |              | Loc <sup>2</sup>      | Texture                              | Remarks                           |
| 0-21                      | 10YR 3/3                          | 100        |                        |              |              |                       | Loam                                 |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
| <b>-</b>                  | ь                                 |            |                        |              |              |                       |                                      |                                   |
|                           | · ·                               |            | ·                      |              |              |                       |                                      |                                   |
|                           | ·                                 |            | ·                      |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           | u                                 |            |                        |              |              |                       | ,                                    |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Redu | uced Matrix, CS=Covere | ed or Coate  | d Sand Gra   | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma           | atrix                             |
| Hydric Soil I             | ndicators:                        |            |                        |              |              |                       | Indicators for Proble                | matic Hydric Soils <sup>3</sup> : |
| Histosol (A               | A1)                               |            | Dark Surface (S        | 57)          |              |                       | 2 cm Muck (A10)                      | -                                 |
| Histic Epip               | pedon (A2)                        |            | Polyvalue Belov        | v Surface (  | S8) (MLRA    | 147,148)              |                                      |                                   |
| Black Hist                | ic (A3)                           |            | Thin Dark Surfa        | ace (S9) (M  | LRA 147, 1   | 48)                   | Coast Prairie Redo<br>(MLRA 147,148) | ox (A16)                          |
| Hydrogen                  | Sulfide (A4)                      |            | Loamy Gleyed I         | Matrix (F2)  |              |                       |                                      |                                   |
|                           | Layers (A5)                       |            | Depleted Matrix        |              |              |                       | Piedmont Floodpla<br>(MLRA 136, 147) | ain Soils (F19)                   |
|                           | k (A10) (LRR N)                   |            | Redox Dark Sur         |              |              |                       | Very Shallow Dark                    | Surface (TE12)                    |
|                           | Below Dark Surface (A             | 11)        | Depleted Dark          | . ,          | 7)           |                       |                                      |                                   |
|                           | k Surface (A12)                   | 11)        | Redox Depressi         |              | )            |                       | Other (Explain in                    | Remarks)                          |
| _                         |                                   |            | Iron-Manganes          |              | F12) (I DD I | M                     |                                      |                                   |
| MLRA 147                  | ck Mineral (S1) (LRR N<br>(, 148) | 1,         | MLRA 136)              | e masses (   |              | Ν,                    |                                      |                                   |
| _                         | eyed Matrix (S4)                  |            | Umbric Surface         | (F13) (ML    | RA 136, 12   | 2)                    |                                      |                                   |
|                           |                                   |            | Piedmont Flood         |              |              |                       | <sup>3</sup> Indicators of           | nydrophytic vegetation and        |
| Sandy Red                 |                                   |            |                        |              |              |                       | wetland hyd                          | rology must be present,           |
|                           | Matrix (S6)                       |            | Red Parent Mat         | terial (F21) | (MLRA 12)    | 7, 147)               |                                      | turbed or problematic.            |
| Restrictive La            | ayer (if observed):               |            |                        |              |              |                       |                                      |                                   |
| Туре:                     |                                   |            |                        |              |              |                       |                                      |                                   |
| Depth (incl               | nes):                             |            |                        |              |              |                       | Hydric Soil Present?                 | Yes 🔾 No 🖲                        |
| Remarks:                  |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |
|                           |                                   |            |                        |              |              |                       |                                      |                                   |

| Project/Site: Telesto Solar Project                           | City/County:     | Cecilia/Hardin       | Sam                                    | pling Dat | e: 24-Feb-2 | 1       |
|---|------------------|----------------------|--|-----------|-------------|---------|
| Applicant/Owner: 7x Energy                                    |                  | State: KY            | Sampling P                             | oint:     | D-04        | D       |
| Investigator(s): J. Stelly and C. Hoffmann                    | Section, Town    | nship, Range: S      | т                                      |           | R           |         |
| Landform (hillslope, terrace, etc.): Flat                     | Local relief (co | ncave, convex, none) | ): flat                                | Slope:    | 0.0 %       | /°      |
| Subregion (LRR or MLRA): LRR N Lat.:                          | 37.68847         | Long.:               | -85.94154                              |           | Datum: W    | GS 1984 |
| Soil Map Unit Name: Sonora silt loam (6 to 12 percent slopes) |                  |                      | NWI classification                     | n: N/A    |             |         |
|   | ly disturbed?    | Are "Normal Circ     | lain in Remarks.)<br>umstances" preser |           | es 🔍 No     | 0       |
| Summary of Findings - Attach site map showing s               | ampling po       | •                    | ain any answers in<br>ransects, imp    |           | -           | s, etc. |
| $\bigcirc$  |                  |                      |  |           |             |         |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No ●<br>No ●<br>No ● | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------|----------------------|---------------------------------------|---|
| Remarks:  |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |

| Wetland Hydrology Indicato   | rs:                     |                      |  | Secondary Indicators (minimum of two required)  |
|--|-------------------------|----------------------|--|---|
| Primary Indicators (minimu   | m of one                | required; o          | check all that apply)  | Surface Soil Cracks (B6)  |
| Surface Water (A1)   |                         |                      | True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)  |                         |                      | Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)   |
| Saturation (A3)  |                         |                      | Oxidized Rhizospheres along Living Roots (C3)  | Moss Trim Lines (B16)   |
| Water Marks (B1)   |                         |                      | Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)   |                         |                      | Recent Iron Reduction in Tilled Soils (C6)   | Crayfish Burrows (C8)   |
| Drift deposits (B3)  |                         |                      | Thin Muck Surface (C7)   | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)  |                         |                      | Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)   |                         |                      |  | Geomorphic Position (D2)  |
| Inundation Visible on Aerial   | Imagery (               | B7)                  |  | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)  |                         |                      |  | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)  |                         |                      |  | FAC-neutral Test (D5)   |
| Field Observations:  | 0                       | 0                    |  |   |
| Surface Water Present?   | Yes $\bigcirc$          | No 🖲                 | Depth (inches):  |   |
| Water Table Present?   | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):  |   |
| Saturation Present?<br>(includes capillary fringe)   | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Wetland Hy Depth (inches):   | drology Present? Yes 🔾 NO 🖲   |
|  | eam gaug                | je, monito           | ring well, aerial photos, previous inspections), if av   | ailable:  |
|  |                         |                      |  |   |
| Remarks:   |                         |                      |  |   |
|  |                         |                      |  |   |
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| <ul> <li>Drift deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul> Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present? Cincludes capillary fringe) Describe Recorded Data (struet) | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland Hy | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|   |           | Dominant<br>– Species? |           | Sampling Point: <b>D-040</b>  |
|---|-----------|------------------------|-----------|---|
|   | Absolute  | Rel.Strat.             | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                 | % Cover   | Cover                  | Status    | Number of Dominant Species  |
| 1   | 0         | 0.0%                   |           | That are OBL, FACW, or FAC: (A)   |
| 2   |           | 0.0%                   |           | Total Number of Dominant  |
| 3   |           | 0.0%                   |           | Species Across All Strata: (B)  |
| 4   | -         | 0.0%                   |           | Dereent of dominant Species   |
| 5   |           | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  |
| 6   |           | 0.0%                   |           |   |
| 7   |           | 0.0%                   |           | Prevalence Index worksheet:   |
| 8   |           | 0.0%                   |           | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                |           | = Total Cover          | -         | OBL species $0 \times 1 = 0$  |
| 1.  |           | 0.0%                   |           | FACW species $0 \times 2 = 0$   |
| 2   |           | 0.0%                   |           | FAC species $0 \times 3 = 0$  |
| 3.  |           | 0.0%                   |           | FACU species x 4 =  |
| 4.  |           | 0.0%                   |           | UPL species $50 \times 5 = 250$   |
| 5   |           | 0.0%                   |           | Column Totals: (A) (B)  |
| 6   | _         | 0.0%                   |           | Prevalence Index = B/A = 5.000  |
| 7   |           | 0.0%                   |           |   |
| 8   |           | 0.0%                   |           | Hydrophytic Vegetation Indicators:  |
| 9   |           | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation   |
| 10.   |           | 0.0%                   |           | $\Box Dominance Test is > 50\%$   |
|   |           | = Total Cove           |           | $\square Prevalence Index is \leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                    | 0         | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |
| 2   | 0         | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 3   |           | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 4   |           | 0.0%                   |           | be present, unless disturbed or problematic.  |
| 5   |           | 0.0%                   |           | Definition of Vegetation Strata:  |
| 6   |           | 0.0%                   |           | Four Vegetation Strata:   |
| 7   | 0         | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |
| Herb Stratum (Plot size:)                                 | 0 :       | = Total Cover          | -         | (7.6 cm) or more in diameter at breast height (DBH), regardless<br>of height.   |
|   | 50        | ✔ 100.0%               | UPL       | Sapling/shrub stratum – Consists of woody plants, excluding   |
| 1. Zea mays   | 0         | 0.0%                   |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |
| 2   | 0         | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |
| 3   | 0         | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 4   | 0         | 0.0%                   |           | in height.  |
| 5   |           | 0.0%                   |           |   |
| 6   |           | 0.0%                   |           | Five Vegetation Strata:   |
| 7   |           | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20  |
| 8   | 0         | 0.0%                   |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |
| 9   | 0         | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody   |
| 10  |           |                        |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| 11  | 0         | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody   |
| 12  | 0<br>50 = | = Total Cover          |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| _Woody Vine Stratum_ (Plot size:)                         |           | _                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody        |
| 1   | 0         | 0.0%                   | ·         | species, except woody vines, less than approximately 3 ft (1  |
| 2   |           | 0.0%                   |           | m) in height.   |
| 3   |           | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of<br>height.   |
| 4   | 0         | 0.0%                   |           | noight.   |
| 5   | 0         | 0.0%                   |           | Hydrophytic   |
| 6   | 0         | 0.0%                   |           | Vegetation  |
|   | 0         | = Total Cove           | r         | Present? Yes V No 🛡   |
| Remarks: (Include photo numbers here or on a senarate she | s+ )      |                        |           |   |

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| Profile Descr        | iption: (Describe to   | the depth | needed to document         | the indica   | ator or co        | nfirm the a      | absence of indicators.)   |                                    |  |
|----------------------|------------------------|-----------|----------------------------|--------------|-------------------|------------------|---|------------------------------------|--|
| Depth                | Matrix                 |           | Re                         | dox Featu    |                   |                  |   |                                    |  |
| (inches)             | Color (moist)          | %         | Color (moist)              | %            | Tvpe <sup>1</sup> | Loc <sup>2</sup> | Texture   | Remarks                            |  |
| 0-21                 | 10YR 3/3               | 100       |                            |              |                   |                  | Loam  |                                    |  |
|                      |                        |           |                            |              |                   |                  |   |                                    |  |
|                      |                        |           |                            |              |                   |                  |   | •                                  |  |
|                      |                        |           | ·                          | - ,          |                   |                  |   | -                                  |  |
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| 67                   |                        |           |                            |              |                   |                  |   |                                    |  |
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|                      |                        |           |                            |              |                   |                  |   |                                    |  |
|                      | contration D-Donletio  | n PM-Podu | red Matrix CS-Cover        | nd or Coste  | d Sand Gra        | ins 21 ocat      | tion: PL=Pore Lining. M=M   | atriv                              |  |
| 5.                   | •                      |           |                            |              |                   |                  | Ũ   |                                    |  |
| Hydric Soil I        |                        |           |                            | (7)          |                   |                  | Indicators for Proble   | ematic Hydric Soils <sup>3</sup> : |  |
| Histosol (           |                        |           | Dark Surface (             | •            |                   | 147 140)         | 2 cm Muck (A10)   | (MLRA 147)                         |  |
|                      | bedon (A2)             |           |                            |              |                   |                  | Coast Prairie Red   | ox (A16)                           |  |
| Black Hist           |                        |           | Thin Dark Surfa            |              | LRA 147, 1        | 48)              | (MLRA 147,148)  |                                    |  |
|                      | Sulfide (A4)           |           | Loamy Gleyed               |              |                   |                  | Piedmont Floodpl  | ain Soils (F19)                    |  |
|                      | Layers (A5)            |           | Depleted Matri             |              |                   |                  | (MLRA 136, 147)   |                                    |  |
|                      | k (A10) (LRR N)        |           | Redox Dark Su              |              |                   |                  | Very Shallow Dar  | k Surface (TF12)                   |  |
|                      | Below Dark Surface (A  | 11)       | Depleted Dark              |              | )                 |                  | Other (Explain in   | Remarks)                           |  |
|                      | k Surface (A12)        |           | Redox Depress              |              |                   |                  |   |                                    |  |
| Sandy Mu<br>MLRA 147 | ck Mineral (S1) (LRR N | Ι,        | Iron-Manganes<br>MLRA 136) | e Masses (F  | -12) (LRR         | Ν,               |   |                                    |  |
|                      | eyed Matrix (S4)       |           | Umbric Surface             | e (F13) (MLI | RA 136, 12        | 2)               |   |                                    |  |
| Sandy Gle            |                        |           | Piedmont Floor             |              |                   |                  | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic. |                                    |  |
|                      | Matrix (S6)            |           |                            |              |                   |                  |   |                                    |  |
|                      |                        |           | Red Parent Ma              | terial (F2T) | (IVILKA 12        | 7, 147)          |   |                                    |  |
| Restrictive L        | ayer (if observed):    |           |                            |              |                   |                  |   |                                    |  |
| Туре:                |                        |           |                            |              |                   |                  |   |                                    |  |
| Depth (inc           | hes):                  |           |                            |              |                   |                  | Hydric Soil Present?  | Yes 🔿 No 🖲                         |  |
| Remarks:             | ,                      |           |                            |              |                   |                  |   |                                    |  |
| Kennarks.            |                        |           |                            |              |                   |                  |   |                                    |  |
|                      |                        |           |                            |              |                   |                  |   |                                    |  |
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|                      |                        |           |                            |              |                   |                  |   |                                    |  |
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|                      |                        |           |                            |              |                   |                  |   |                                    |  |
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| Project/Site: Telesto Solar Project                          | City/County:      | Cecilia/Hardin       | Samp   | pling Date: 24-Feb | o-21      |
|--|-------------------|----------------------|--|--------------------|-----------|
| Applicant/Owner: 7x Energy                                   |                   | State: KY            | Sampling Po  | oint: D-0          | 041       |
| Investigator(s): J. Stelly and C. Hoffmann                   | Section, Town     | nship, Range: S      | т  | R                  |           |
| Landform (hillslope, terrace, etc.): Flat                    | Local relief (cor | ncave, convex, none) | i: flat  | Slope: 0.0         | %/°       |
| Subregion (LRR or MLRA): LRR N Lat.:                         | 37.68951          | Long.:               | -85.94495  | Datum:             | WGS 1984  |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes) |                   |                      | NWI classification   | n: <u>N/A</u>      |           |
|  | ear? Yes •        | Are "Normal Circ     | lain in Remarks.)<br>umstances" presen<br>ain any answers in l |                    | No O      |
| Summary of Findings - Attach site map showing s              |                   | • • •                | 5  | ·                  | res, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------|----------------------|---------------------------------------|---|
| Remarks:  |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |

| Wetland Hydrology Indicate  | ors:                    |                      |   | Secondary Indicators (minimum of two required)  |
|---|-------------------------|----------------------|---|---|
| Primary Indicators (minimu  | um of one               | required;            | check all that apply)   | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                         |                      | True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)   |                         |                      | Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)   |
| Saturation (A3)   |                         |                      | Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Water Marks (B1)  |                         |                      | Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  |                         |                      | Recent Iron Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                         |                      | Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)   |                         |                      | Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  |                         |                      |   | Geomorphic Position (D2)  |
| Inundation Visible on Aeria   | al Imagery (            | B7)                  |   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | )                       |                      |   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   |                         |                      |   | FAC-neutral Test (D5)   |
| Field Observations:   | 0                       | 0                    |   |   |
| Surface Water Present?  | Yes $\bigcirc$          | No 🔍                 | Depth (inches):   |   |
| Water Table Present?  | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):   |   |
| Saturation Present?<br>(includes capillary fringe)  | $_{\rm Yes} \bigcirc$   | No 🖲                 | Wetlan<br>Depth (inches):   | d Hydrology Present? Yes 🔾 No 👻   |
| Describe Recorded Data (st  | tream gauç              | ge, monito           | ring well, aerial photos, previous inspections),  | if available:   |
|   |                         |                      |   |   |
| Remarks:  |                         |                      |   |   |
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|   |                         |                      |   |   |
| Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|  |          | Dominant<br>– Species? |           | Sampling Point: <b>D-041</b>   |
|--|----------|------------------------|-----------|--|
|  | Absolute | Rel.Strat.             | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                  | Status    | Number of Dominant Species   |
| 1  | 0        | 0.0%                   |           | That are OBL, FACW, or FAC: (A)  |
| 2  |          | 0.0%                   |           | Total Number of Dominant   |
| 3  |          | 0.0%                   |           | Species Across All Strata: (B)   |
| 4  |          | 0.0%                   |           | Dereent of dominant Species  |
| 5  |          | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |
| 6  |          | 0.0%                   |           |  |
| 7  |          | 0.0%                   |           | Prevalence Index worksheet:  |
| 8  |          | 0.0%                   |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover          | -         | OBL species $0 \times 1 = 0$   |
| <u></u>  |          | 0.0%                   |           | FACW species $0 \times 2 = 0$  |
| 2  |          | 0.0%                   |           | FAC species $0 \times 3 = 0$   |
| 3.   |          | 0.0%                   |           | FACU species x 4 =200  |
| 4.   |          | 0.0%                   |           | UPL species $0 \times 5 = 0$   |
| 5  |          | 0.0%                   |           | Column Totals: (A) (B)   |
| 6  | _        | 0.0%                   |           | Prevalence Index = $B/A = 4.000$   |
| 7  |          | 0.0%                   |           |  |
| 8  |          | 0.0%                   |           | Hydrophytic Vegetation Indicators:   |
| 9  |          | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation  |
| 10.  |          | 0.0%                   |           | $\Box Dominance Test is > 50\%$  |
|  |          | = Total Cove           |           | Prevalence Index is $\leq 3.0^{-1}$  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 2  |          | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                   |           | be present, unless disturbed or problematic.   |
| 5  |          | 0.0%                   |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%                   |           | Four Vegetation Strata:  |
| 7.   | 0        | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover          | -         | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |
|  | 50       | 100.0%                 | FACU      | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1. Echinochioa crusgalli                                   | 0        | 0.0%                   | TACO      | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  | 0        | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4<br>5   | 0        | 0.0%                   |           | in height.   |
| 5<br>6.  |          | 0.0%                   |           |  |
| 7  |          | 0.0%                   |           | Five Vegetation Strata:  |
| 8  |          | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |
| 9  | 0        | 0.0%                   |           | diameter at breast height (DBH).   |
| 9<br>10  | 0        | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 11.  | 0        | 0.0%                   |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 12   | 0        | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody  |
|  |          | = Total Cover          | -         | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size: )                           |          | _                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |
| 1  | 0        | 0.0%                   |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  | 0        | 0.0%                   |           | m) in height.  |
| 3  |          | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  |          | 0.0%                   |           | -  |
| 5  | -        | 0.0%                   | ·         | Hydrophytic  |
| 6  | 0        | 0.0%                   |           | Vegetation<br>Present? Yes O No •  |
|  | 0        | = Total Cove           | r         |  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |                        |           |  |

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| Profile Descri            | iption: (Describe to             | the depth ne | eded to document           | the indica    | tor or cor        | nfirm the a           | absence of indicators.)                   |  |
|---------------------------|----------------------------------|--------------|----------------------------|---------------|-------------------|-----------------------|---|--|
| Depth                     | Matrix                           |              |                            | dox Featur    |                   |                       |   |  |
| (inches)                  | Color (moist)                    |              | Color (moist)              | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture                                   | Remarks  |
| 0-21                      | 10YR 3/1                         | 100          |                            |               |                   |                       | Loam                                      |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           | _                                |              | _                          |               |                   |                       |   |  |
|                           |                                  | ·            |                            |               |                   |                       |   |  |
|                           |                                  | ·            |                            |               |                   |                       |   |  |
|                           |                                  |              |                            | ·             |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
| <sup>1</sup> Type: C=Conc | centration. D=Depletio           | n. RM=Reduce | d Matrix, CS=Covere        | d or Coated   | I Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma                | atrix  |
| Hydric Soil I             | ndicators:                       |              |                            |               |                   |                       | Indicators for Proble                     | ematic Hydric Soils <sup>3</sup> :                     |
| Histosol (A               | A1)                              |              | Dark Surface (             | 57)           |                   |                       | 2 cm Muck (A10)                           | 2  |
| Histic Epip               | oedon (A2)                       |              | Polyvalue Below            |               |                   |                       |   |  |
| Black Histi               |                                  |              | Thin Dark Surfa            | ace (S9) (ML  | RA 147, 1         | 48)                   | Coast Prairie Redo<br>(MLRA 147,148)      | ox (A16)   |
|                           | Sulfide (A4)                     |              | Loamy Gleyed               | Matrix (F2)   |                   |                       | Piedmont Floodpla                         | ain Soils (F19)  |
|                           | Layers (A5)                      |              | Depleted Matrix            |               |                   |                       | (MLRA 136, 147)                           |  |
| 2 cm Muck                 | (A10) (LRR N)                    |              | Redox Dark Su              |               |                   |                       | Very Shallow Dark                         | Surface (TF12)   |
| Depleted I                | Below Dark Surface (A            | 11)          | Depleted Dark              |               | )                 |                       | Other (Explain in                         | Remarks)   |
| Thick Dark                | < Surface (A12)                  |              | Redox Depress              |               |                   |                       |   | ·  |
| Sandy Mue<br>MLRA 147     | ck Mineral (S1) (LRR N<br>, 148) | l <b>,</b>   | Iron-Manganes<br>MLRA 136) |               |                   |                       |   |  |
| Sandy Gle                 | yed Matrix (S4)                  |              | Umbric Surface             | e (F13) (MLF  | RA 136, 12        | 2)                    | 3   |  |
| Sandy Rec                 | dox (S5)                         |              | Piedmont Floor             | plain Soils ( | (F19) (MLR        | A 148)                | <sup>o</sup> Indicators of<br>wetland hyd | hydrophytic vegetation and<br>Irology must be present, |
| Stripped N                | Aatrix (S6)                      |              | Red Parent Ma              | terial (F21)  | (MLRA 127         | ', 147)               |   | sturbed or problematic.                                |
| Bootrictive La            | ayer (if observed):              |              |                            |               |                   |                       |   |  |
| Type:                     | ayer (il observed):              |              |                            |               |                   |                       |   |  |
| Depth (inch               |                                  |              |                            |               |                   |                       | Hydric Soil Present?                      | Yes 🔿 No 🖲   |
|                           | les <sub>j</sub> .               |              |                            |               |                   |                       | -   |  |
| Remarks:                  |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
|                           |                                  |              |                            |               |                   |                       |   |  |
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|                           |                                  |              |                            |               |                   |                       |   |  |
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|                           |                                  |              |                            |               |                   |                       |   |  |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin       | Sampl                                   | ling Date: 24-Fe | eb-21         |
|---|------------------|----------------------|---|------------------|---------------|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Po                             | int: D           | -042          |
| Investigator(s): J. Stelly and C. Hoffmann  | Section, Tow     | nship, Range: S      | т                                       | R                |               |
| Landform (hillslope, terrace, etc.): Flat   | Local relief (co | ncave, convex, none) | : flat                                  | Slope: 0.0       | %/°           |
| Subregion (LRR or MLRA): LRR N Lat.:  | 37.69207         | Long.:               | -85.94741                               | Datum:           | WGS 1984      |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes)  |                  |                      | NWI classification:                     | : N/A            |               |
| Are climatic/hydrologic conditions on the site typical for this time of your Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       | <b>x</b> 77 F        | lain in Remarks.)<br>umstances" present | ? Yes ⊙          | No $\bigcirc$ |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | problematic?     | (If needed, expl     | ain any answers in R                    | emarks.)         |               |
| Summary of Findings - Attach site map showing s   | ampling po       | oint locations, t    | ransects, impo                          | ortant featu     | ures, etc.    |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|-------------------|----------------------|---------------------------------------|---|
| Remarks:  |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |
|   |                   |                      |                                       |   |

| Wetland Hydrology Indicators:          |             |   | Secondary Indicators (minimum of two required) |
|--|-------------|---|--|
| Primary Indicators (minimum of one     | required; c | heck all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                     |             | True Aquatic Plants (B14)                         | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                  |             | Hydrogen Sulfide Odor (C1)                        | Drainage Patterns (B10)                        |
| Saturation (A3)                        |             | Oxidized Rhizospheres along Living Roots (C3)     | Moss Trim Lines (B16)                          |
| Water Marks (B1)                       |             | Presence of Reduced Iron (C4)                     | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                 |             | Recent Iron Reduction in Tilled Soils (C6)        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                    |             | Thin Muck Surface (C7)                            | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                |             | Other (Explain in Remarks)                        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                     |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery ( | (B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)              |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                    |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                    | 0           |   |  |
| Surface Water Present? Yes O           | No 🖲        | Depth (inches):                                   |  |
| Water Table Present? Yes $\bigcirc$    | No 🖲        | Depth (inches):                                   | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present? Yes O              | No 🖲        | Wetland<br>Depth (inches):                        | I Hydrology Present? Yes 🔾 No 🖲                |
| Describe Recorded Data (stream gauge   | ge, monitor | ing well, aerial photos, previous inspections), i | f available:                                   |
|  |             |   |  |
| Remarks:                               |             |   |  |
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|  |             |   |  |
| Describe Recorded Data (stream gau     |             |   | f available:                                   |

|  |          |          | minant               |           | Sampling Point: <u>D-042</u>   |
|--|----------|----------|----------------------|-----------|--|
|  | Absolute | Re       | ecies? -<br>I.Strat. | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  |          |                      | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 40       |          | 50.0%                | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | 30       |          | 37.5%                | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          |          | 12.5%                | FACW      | Species Across All Strata: (B)   |
| 4  |          |          | 0.0%                 |           | Percent of dominant Species  |
| 5  |          |          | 0.0%                 |           | That Are OBL, FACW, or FAC: $0.0\%$ (A/B)  |
| 6  |          |          | 0.0%                 |           |  |
| 7  |          | <u> </u> | 0.0%                 |           | Prevalence Index worksheet:  |
| 8  | 0        |          | 0.0%                 |           | Total % Cover of: Multiply by:   |
| _Sapling-Sapling/Shrub Stratum_ (Plot size:)               | 80       | = 10     | tal Cover            | -         | OBL species         0         x 1 =         0  |
| 1  | 0        |          | 0.0%                 |           | FACW species $10 \times 2 = 20$  |
| 2  |          |          | 0.0%                 |           | FAC species $0 \times 3 = 0$   |
| 3  | 0        |          | 0.0%                 |           | FACU species $70 \times 4 = 280$   |
| 4  | _        |          | 0.0%                 |           | UPL species x 5 =  |
| 5  | 0        |          | 0.0%                 |           | Column Totals: <u>80</u> (A) <u>300</u> (B)  |
| 6  | 0        |          | 0.0%                 |           | Prevalence Index = B/A = 3.750   |
| 7  | 0        |          | 0.0%                 |           | Hydrophytic Vegetation Indicators:   |
| 8  |          |          | 0.0%                 |           | Rapid Test for Hydrophytic Vegetation  |
| 9  |          |          | 0.0%                 |           | Dominance Test is > 50%  |
| 10   | 0        |          | 0.0%                 |           | Prevalence Index is $\leq 3.0^{-1}$  |
| Shrub Stratum (Plot size:)                                 | 0        | = To     | tal Cover            |           | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0        |          | 0.0%                 |           | data in Remarks or on a separate sheet)  |
| 2  |          |          | 0.0%                 |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  | 0        |          | 0.0%                 |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  | 0        |          | 0.0%                 |           | be present, unless disturbed or problematic.   |
| 5  | 0        |          | 0.0%                 |           | Definition of Vegetation Strata:   |
| 6  |          |          | 0.0%                 |           | Four Vegetation Strata:  |
| 7  | 0        |          | 0.0%                 |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum_ (Plot size:)                                 | 0        | = To     | tal Cover            |           | of height.   |
| <br>1  | 0        |          | 0.0%                 |           | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.     |
| 2.   | 0        |          | 0.0%                 |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3  | 0        |          | 0.0%                 |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4  | 0        |          | 0.0%                 |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5  | 0        |          | 0.0%                 |           | in height.   |
| 6  | 0        |          | 0.0%                 |           | Five Vegetation Strata:  |
| 7  | 0        |          | 0.0%                 |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  | 0        |          | 0.0%                 |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9  | 0        |          | 0.0%                 |           | diameter at breast height (DBH).   |
| 10   | 0        |          | 0.0%                 |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |
| 11   | 0        |          | 0.0%                 |           | than 3 in. (7.6 cm) DBH.   |
| 12   |          |          | 0.0%                 |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.                 |
| Woody Vine Stratum (Plot size:)                            |          | = To     | tal Cover            |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1  | 0        |          | 0.0%                 |           | including herbaceous vines, regardless of size, and woody  |
| 2.   | 0        |          | 0.0%                 |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 3  |          |          | 0.0%                 |           | Woody vines – Consists of all woody vines, regardless of   |
| 4.   |          |          | 0.0%                 |           | height.  |
| 5  | 0        |          | 0.0%                 |           |  |
| 6  | 0        |          | 0.0%                 |           | Hydrophytic<br>Vegetation  |
|  | 0        | = To     | tal Cove             | r         | Present? Yes O No •  |
| Remarks: (Include photo numbers here or on a separate shee |          |          |                      |           | 1  |

| Profile Descr             | iption: (Describe to   | the depth i | needed to document         | the indica  | ator or co        | nfirm the a           | absence of indicators.)  |                                   |  |
|---------------------------|------------------------|-------------|----------------------------|-------------|-------------------|-----------------------|--|-----------------------------------|--|
| Depth                     | Matrix                 |             | Ree                        | dox Featu   |                   |                       |  |                                   |  |
| (inches)                  | Color (moist)          | %           | Color (moist)              | %           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture  | Remarks                           |  |
| 0-21                      | 10YR 3/1               | 100         |                            |             |                   |                       | Loam   |                                   |  |
|                           |                        |             |                            |             |                   |                       |  |                                   |  |
| -                         |                        |             |                            |             |                   |                       |  |                                   |  |
|                           |                        |             |                            |             |                   |                       |  |                                   |  |
|                           | u                      | ·           |                            |             |                   |                       | ·  |                                   |  |
|                           |                        |             |                            |             |                   |                       | ,  |                                   |  |
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|                           |                        |             |                            |             |                   |                       |  |                                   |  |
|                           |                        |             |                            |             |                   |                       |  |                                   |  |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio | n. RM=Redu  | ced Matrix, CS=Covere      | d or Coate  | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M  | atrix                             |  |
| Hydric Soil I             | ndicators:             |             |                            |             |                   |                       | Indicators for Proble  | matic Hydric Soils <sup>3</sup> : |  |
| Histosol (/               | A1)                    |             | Dark Surface (             | 57)         |                   |                       |  | -                                 |  |
| 🗌 Histic Epip             | pedon (A2)             |             | Polyvalue Belov            | v Surface ( | S8) (MLRA         | 147,148)              | 2 cm Muck (A10)  | . ,                               |  |
| Black Hist                | ic (A3)                |             | Thin Dark Surfa            | ace (S9) (M | LRA 147, 1        | 48)                   | Coast Prairie Redo<br>(MLRA 147,148)                                   | ox (A16)                          |  |
| Hydrogen                  | Sulfide (A4)           |             | Loamy Gleyed               | Matrix (F2) |                   |                       |  | ain Caile (F10)                   |  |
| Stratified                | Layers (A5)            |             | Depleted Matrix            | (F3)        |                   |                       | Piedmont Floodpl<br>(MLRA 136, 147)                                    |                                   |  |
| 2 cm Mucl                 | k (A10) (LRR N)        |             | Redox Dark Su              | rface (F6)  |                   |                       | Very Shallow Darl  | s Surface (TF12)                  |  |
| Depleted                  | Below Dark Surface (A  | 11)         | Depleted Dark              | Surface (F7 | )                 |                       | Other (Explain in  |                                   |  |
|                           | k Surface (A12)        |             | Redox Depress              | ions (F8)   |                   |                       |  | (including)                       |  |
| Sandy Mu<br>MLRA 147      | ck Mineral (S1) (LRR N | Ι,          | Iron-Manganes<br>MLRA 136) | e Masses (I | F12) (LRR I       | Ν,                    |  |                                   |  |
|                           | yed Matrix (S4)        |             | Umbric Surface             | (F13) (ML   | RA 136, 12        | 2)                    |  |                                   |  |
| Sandy Ge                  |                        |             | Piedmont Floor             |             |                   |                       | <sup>3</sup> Indicators of   | hydrophytic vegetation and        |  |
| Stripped N                |                        |             | Red Parent Ma              |             |                   |                       | wetland hydrology must be present,<br>unless disturbed or problematic. |                                   |  |
| Restrictive La            | ayer (if observed):    |             |                            |             |                   |                       |  |                                   |  |
| Туре:                     |                        |             |                            |             |                   |                       |  |                                   |  |
| Depth (incl               | hes):                  |             |                            |             |                   |                       | Hydric Soil Present?   | Yes 🔿 No 🖲                        |  |
| Remarks:                  |                        |             |                            |             |                   |                       | 1  |                                   |  |
|                           |                        |             |                            |             |                   |                       |  |                                   |  |
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| I                         |                        |             |                            |             |                   |                       |  |                                   |  |

| Project/Site: Telesto Solar Project  | City/County:                  | Cecilia/Hardin      | Sampling                                 | Date: 24-Feb-21    |
|--|-------------------------------|---------------------|--|--------------------|
| Applicant/Owner: 7x Energy   |                               | State: KY           | Sampling Point:                          | D-043              |
| Investigator(s): J. Stelly and C. Hoffmann   | Section, Town                 | ship, Range: S      | т  | R                  |
| Landform (hillslope, terrace, etc.): Flat  | Local relief (con             | cave, convex, none) | : flat Sic                               | ope: % / °         |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.69172                      | Long.:              | -85.94932                                | Datum: WGS 1984    |
| Soil Map Unit Name: Sonora silt loam (2 to 6 percent slopes)   |                               |                     | NWI classification:                      | I/A                |
| Are climatic/hydrologic conditions on the site typical for this time of years Are Vegetation, Soil, or Hydrology significant | ear? Yes 🔍 I<br>Iy disturbed? |                     | lain in Remarks.)<br>umstances" present? | Yes   No           |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | problematic?                  | (If needed, expla   | ain any answers in Rema                  | arks.)             |
| Summary of Findings - Attach site map showing s  | ampling po                    | int locations, t    | ransects, import                         | ant features, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes<br>Yes<br>Yes<br>Yes | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|--------------------------|----------------------|---------------------------------------|---|
| Remarks:  |                          |                      |                                       |   |
|   |                          |                      |                                       |   |
|   |                          |                      |                                       |   |
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| Wetland Hydrology Indicate  | ors:                    |                      |   | Secondary Indicators (minimum of two required)  |
|---|-------------------------|----------------------|---|---|
| Primary Indicators (minimu  | um of one               | required;            | check all that apply)   | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                         |                      | True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)   |                         |                      | Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)   |
| Saturation (A3)   |                         |                      | Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Water Marks (B1)  |                         |                      | Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  |                         |                      | Recent Iron Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                         |                      | Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)   |                         |                      | Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  |                         |                      |   | Geomorphic Position (D2)  |
| Inundation Visible on Aeria   | al Imagery (            | B7)                  |   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | )                       |                      |   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   |                         |                      |   | FAC-neutral Test (D5)   |
| Field Observations:   | 0                       | 0                    |   |   |
| Surface Water Present?  | Yes $\bigcirc$          | No 🔍                 | Depth (inches):   |   |
| Water Table Present?  | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):   |   |
| Saturation Present?<br>(includes capillary fringe)  | $_{\rm Yes} \bigcirc$   | No 🖲                 | Wetlan<br>Depth (inches):   | d Hydrology Present? Yes 🔾 No 👻   |
| Describe Recorded Data (st  | tream gauç              | ge, monito           | ring well, aerial photos, previous inspections),  | if available:   |
|   |                         |                      |   |   |
| Remarks:  |                         |                      |   |   |
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|   |                         |                      |   |   |
|   |                         |                      |   |   |
| Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 💿<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

|   |            | Dominant<br>—Species?  |           | Sampling Point: D-043   |  |  |
|---|------------|------------------------|-----------|---|--|--|
|   | Absolute   | Rel.Strat.             | Indicator | Dominance Test worksheet:   |  |  |
| Tree Stratum (Plot size:)                                 | % Cover    | Cover                  | Status    | Number of Dominant Species  |  |  |
| 1   | 0          | 0.0%                   |           | That are OBL, FACW, or FAC: (A)   |  |  |
| 2   |            | 0.0%                   |           | Total Number of Dominant  |  |  |
| 3   |            | 0.0%                   |           | Species Across All Strata: (B)  |  |  |
| 4   | -          | 0.0%                   |           | Dereent of dominant Species   |  |  |
| 5   |            | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  |  |  |
| 6   |            | 0.0%                   |           |   |  |  |
| 7   |            | 0.0%                   |           | Prevalence Index worksheet:   |  |  |
| 8   |            | 0.0%                   |           | Total % Cover of: Multiply by:  |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | ) <u> </u> | = Total Cover          | -         | OBL species $0 \times 1 = 0$  |  |  |
| 1.  | ~          | 0.0%                   |           | FACW species $0 \times 2 = 0$   |  |  |
| 2   |            | 0.0%                   |           | FAC species $0 \times 3 = 0$  |  |  |
| 3.  |            | 0.0%                   |           | FACU species x 4 =  |  |  |
| 4   |            | 0.0%                   |           | UPL species $50 \times 5 = 250$   |  |  |
| 5   |            | 0.0%                   |           | Column Totals: (A) (B)  |  |  |
| 6   |            | 0.0%                   |           | Prevalence Index = $B/A = 5.000$  |  |  |
| 7   | -          | 0.0%                   |           |   |  |  |
| 8   |            | 0.0%                   |           | Hydrophytic Vegetation Indicators:  |  |  |
| 9   |            | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation   |  |  |
| 10.   |            | 0.0%                   |           | Dominance Test is > 50%   |  |  |
|   |            | = Total Cover          |           | $\square Prevalence Index is \leq 3.0^{-1}$   |  |  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                    | 0          |                        |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |  |  |
| 2   | 0          | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3   |            | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |  |  |
| 4   |            | 0.0%                   |           | be present, unless disturbed or problematic.  |  |  |
| 5   |            | 0.0%                   |           | Definition of Vegetation Strata:  |  |  |
| 6   |            | 0.0%                   |           | Four Vegetation Strata:   |  |  |
| 7   | 0          | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |  |  |
|   |            | = Total Cover          |           | (7.6 cm) or more in diameter at breast height (DBH), regardless<br>of height.   |  |  |
| Herb Stratum (Plot size:)                                 |            |                        |           | Sapling/shrub stratum – Consists of woody plants, excluding   |  |  |
| 1. <u>Zea mays</u>  | 0          |                        | UPL       | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |  |  |
| 2   | 0          | 0.0%                   | ·         | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |  |  |
| 3   | 0          | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |  |  |
| 4   | 0          | 0.0%                   | ·         | in height.  |  |  |
| 5   |            | 0.0%                   | ·         |   |  |  |
| 6   |            |                        | ·         | Five Vegetation Strata:   |  |  |
| 7   |            | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20  |  |  |
| 8   |            | 0.0%                   |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in<br>diameter at breast height (DBH).                                    |  |  |
| 9   | 0          | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody   |  |  |
| 10  | 0          | 0.0%                   |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |  |  |
| 11  | 0          | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody   |  |  |
| 12  |            | □0.0%<br>= Total Cover |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |  |  |
| Woody Vine Stratum (Plot size:)                           | 50=        |                        |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
| 1   | 0          | 0.0%                   |           | including herbaceous vines, regardless of size, and woody<br>species, except woody vines, less than approximately 3 ft (1         |  |  |
| 2   | 0          | 0.0%                   |           | m) in height.   |  |  |
| 3   | 0          | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of  |  |  |
| 4   | -          | 0.0%                   |           | height.   |  |  |
| 5   | _          | 0.0%                   |           | Hudrophytic   |  |  |
| 6   | 0          | 0.0%                   |           | Hydrophytic<br>Vegetation   |  |  |
|   | 0          | = Total Cove           | r         | Present? Yes No •   |  |  |
| Pemarks: (Include nhoto numbers here or on a separate she |            |                        |           |   |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Descr             | iption: (Describe to              | the depth ne | eded to document           | the indica   | ator or co        | nfirm the a           | absence of indicators.)    |   |
|---------------------------|-----------------------------------|--------------|----------------------------|--------------|-------------------|-----------------------|----------------------------|---|
| Depth                     | Matrix                            |              | Rec                        | dox Featur   |                   |                       |                            |   |
| (inches)                  | Color (moist)                     | %            | Color (moist)              | _%           | Tvpe <sup>1</sup> | Loc <sup>2</sup>      | Texture                    | Remarks   |
| 0-21                      | 10YR 3/1                          | 100          |                            |              |                   |                       | Loam                       |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
| -                         |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           | . <u> </u>                        |              | <u>_</u>                   |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              | <u>_</u>                   |              |                   |                       | -                          |   |
|                           |                                   |              |                            | -            |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Reduce | d Matrix, CS=Covere        | ed or Coated | d Sand Gra        | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M  | atrix   |
| Hydric Soil I             | ndicators:                        |              |                            |              |                   |                       | Indiantors for Droble      | ematic Hydric Soils <sup>3</sup> :                  |
| Histosol (/               |                                   |              | Dark Surface (S            | 57)          |                   |                       |                            | -   |
| Histic Epip               |                                   |              | Polyvalue Belov            |              | 58) (MI RA        | 147,148)              | 2 cm Muck (A10)            | (MLRA 147)  |
| Black Hist                |                                   |              | Thin Dark Surfa            |              |                   |                       | Coast Prairie Rede         | ox (A16)  |
| _                         | Sulfide (A4)                      |              | Loamy Gleyed               |              |                   | 40)                   | (MLRA 147,148)             |   |
|                           | Layers (A5)                       |              |                            |              |                   |                       | Piedmont Floodpl           |   |
| _                         |                                   |              | Depleted Matrix            |              |                   |                       | (MLRA 136, 147)            |   |
|                           | k (A10) (LRR N)                   |              | Redox Dark Su              |              | 、<br>、            |                       | Very Shallow Dar           | k Surface (TF12)                                    |
|                           | Below Dark Surface (A             | 11)          | Depleted Dark              |              | )                 |                       | Other (Explain in          | Remarks)  |
|                           | k Surface (A12)                   |              | Redox Depress              |              |                   |                       |                            |   |
| Sandy Mu<br>MLRA 147      | ck Mineral (S1) (LRR N<br>7, 148) | Ι,           | Iron-Manganes<br>MLRA 136) | e Masses (F  | 12) (LRR 1        | Ν,                    |                            |   |
| Sandy Gle                 | yed Matrix (S4)                   |              | Umbric Surface             | (F13) (MLI   | RA 136, 12        | 2)                    | 2                          |   |
| Sandy Red                 |                                   |              | Piedmont Flood             | plain Soils  | (F19) (MLF        | RA 148)               | <sup>3</sup> Indicators of | hydrophytic vegetation and                          |
| Stripped N                |                                   |              | Red Parent Ma              |              |                   |                       |                            | drology must be present,<br>sturbed or problematic. |
|                           | . ,                               |              |                            | ,            |                   |                       |                            |   |
| Restrictive La            | ayer (if observed):               |              |                            |              |                   |                       |                            |   |
| Туре:                     |                                   |              |                            |              |                   |                       |                            |   |
| Depth (incl               | nes):                             |              |                            |              |                   |                       | Hydric Soil Present?       | Yes 🔾 No 🖲  |
| Remarks:                  |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |
|                           |                                   |              |                            |              |                   |                       |                            |   |

| Project/Site: Telesto Solar Project                          | City/County:     | Cecilia/Hardin      | Sampli                                    | ing Date: 24-Fel  | ate: 24-Feb-21 |  |
|--|------------------|---------------------|---|-------------------|----------------|--|
| Applicant/Owner: 7x Energy                                   |                  | State: KY           | Sampling Poin                             | nt: D-            | 044            |  |
| Investigator(s): J. Stelly and C. Hoffmann                   | Section, Tow     | nship, Range: S     | т   | R                 |                |  |
| Landform (hillslope, terrace, etc.): Flat                    | Local relief (co | ncave, convex, none | ): flat                                   | Slope: <u>0.0</u> | %/°            |  |
| Subregion (LRR or MLRA): LRR N Lat.:                         | 37.69083         | Long.:              | -85.95041                                 | Datum:            | WGS 1984       |  |
| Soil Map Unit Name: Sonora silt loam (2 to 6 percent slopes) |                  |                     | NWI classification:                       | PUBH              |                |  |
|  | ly disturbed?    |                     | lain in Remarks.)<br>:umstances" present? | Yes 🖲 I           | No O           |  |
| 5 <u> </u>   | problematic?     | · · ·               | ain any answers in Re                     |                   |                |  |
| Summary of Findings - Attach site map showing s              | ampling po       | oint locations, t   | transects, impo                           | ortant featu      | res, etc.      |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes         No         Image: No <th <="" image:="" no<="" th=""><th>Is the Sampled Area Yes  No  Ves</th></th> | <th>Is the Sampled Area Yes  No  Ves</th> | Is the Sampled Area Yes  No  Ves |
|---|---|---|----------------------------------|
| Remarks:  |   |   |                                  |

| Wetland Hydrology Indicate                                | ors:                    |       |         |                                      |                                       | Secondary Indicators (minimum of two required) |
|---|-------------------------|-------|---------|--------------------------------------|---------------------------------------|--|
| Primary Indicators (minimu                                | um of one               | requi | red; cl | neck all that apply)                 |                                       | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                         |       |         | True Aquatic Plants (B14)            |                                       | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                         |       |         | Hydrogen Sulfide Odor (C1)           |                                       | Drainage Patterns (B10)                        |
| Saturation (A3)   |                         |       |         | ✓ Oxidized Rhizospheres along Living | Roots (C3)                            | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                         |       |         | Presence of Reduced Iron (C4)        |                                       | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                         |       |         | Recent Iron Reduction in Tilled Soil | ls (C6)                               | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                       |                         |       |         | Thin Muck Surface (C7)               |                                       | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                         |       |         | Other (Explain in Remarks)           |                                       | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                         |       |         |                                      |                                       | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | al Imagery (            | B7)   |         |                                      |                                       | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                 | )                       |       |         |                                      |                                       | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                         |       |         |                                      |                                       | FAC-neutral Test (D5)                          |
| Field Observations:                                       |                         |       |         |                                      |                                       |  |
| Surface Water Present?                                    | Yes $\bigcirc$          | No    | ullet   | Depth (inches):                      |                                       |  |
| Water Table Present?                                      | $_{ m Yes}$ $\bigcirc$  | No    | ullet   | Depth (inches):                      |                                       |  |
|   |                         |       |         |                                      | · · · · · · · · · · · · · · · · · · · |  |
| Saturation Present?<br>(includes capillary fringe)        | $_{\rm Yes}$ $\bigcirc$ | No    |         | Depth (inches):                      | Wetland Hydr                          | ology Present? Yes 🖲 No 🔿                      |
| (includes capillary fringe)                               |                         |       | •       |                                      | -                                     |  |
| (includes capillary fringe)                               |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)                               |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |
| (includes capillary fringe)<br>Describe Recorded Data (st |                         |       | •       | Depth (inches):                      | -                                     |  |

|   |                     | Dominant                  |           | Sampling Point: D-044  |  |  |
|---|---------------------|---------------------------|-----------|--|--|--|
|   | Absolute<br>% Cover | -Species? -<br>Rel.Strat. | Indicator | Dominance Test worksheet:  |  |  |
| Tree Stratum (Plot size:)                                 |                     | Cover                     | Status    | Number of Dominant Species   |  |  |
| 1   | 0                   | 0.0%                      |           | That are OBL, FACW, or FAC: (A)  |  |  |
| 2   | 0                   | 0.0%                      |           | Total Number of Dominant   |  |  |
| 3   | 0                   | 0.0%                      |           | Species Across All Strata: (B)   |  |  |
| 4   | 0                   | 0.0%                      |           |  |  |  |
| 5   | 0                   | 0.0%                      |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)   |  |  |
| 6   | 0                   | 0.0%                      |           |  |  |  |
| 7   | 0                   | 0.0%                      |           | Prevalence Index worksheet:  |  |  |
| 8   | 0                   | 0.0%                      |           | Total % Cover of: Multiply by:   |  |  |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | ) :                 | = Total Cove              |           | OBL species x 1 =  |  |  |
|   |                     | 0.0%                      |           | FACW species $0 \times 2 = 0$  |  |  |
| 1   |                     | 0.0%                      |           | FAC species $0 \mathbf{x} 3 = 0$   |  |  |
| 2   |                     | 0.0%                      |           | FACU species x 4 =   |  |  |
| 3   |                     | 0.0%                      |           | UPL species x 5 =250   |  |  |
| 4   |                     | 0.0%                      | ·         | Column Totals: 50 (A) 250 (B)  |  |  |
| 5   |                     |                           |           |  |  |  |
| 6   |                     | 0.0%                      |           | Prevalence Index = $B/A = 5.000$   |  |  |
| 7   |                     |                           |           | Hydrophytic Vegetation Indicators:   |  |  |
| 8   |                     | 0.0%                      |           | Rapid Test for Hydrophytic Vegetation  |  |  |
| 9   |                     | 0.0%                      |           | Dominance Test is > 50%  |  |  |
| 10  |                     | 0.0%                      |           | Prevalence Index is $\leq$ 3.0 $^{1}$  |  |  |
| Shrub Stratum (Plot size:)                                | :                   | = Total Cover             | •         | Morphological Adaptations <sup>1</sup> (Provide supporting   |  |  |
| 1   | 0                   | 0.0%                      |           | data in Remarks or on a separate sheet)  |  |  |
| 2   | 0                   | 0.0%                      |           | $\Box$ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |  |  |
| 3   | 0                   | 0.0%                      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |  |  |
| 4   | 0                   | 0.0%                      |           | be present, unless disturbed or problematic.   |  |  |
| 5   | 0                   | 0.0%                      |           | Definition of Vegetation Strata:   |  |  |
| 6   | 0                   | 0.0%                      |           | Four Vegetation Strata:  |  |  |
| 7   | 0                   | 0.0%                      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |  |  |
| Herb Stratum (Plot size:)                                 | 0 :                 | = Total Cove              |           | of height.   |  |  |
| 1. Zea mays   | 50                  | ✓ 100.0%                  | UPI       | Sapling/shrub stratum – Consists of woody plants, excluding  |  |  |
| 2   | 0                   | 0.0%                      |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |  |  |
|   |                     | 0.0%                      |           | regardless of size, and all other plants less than 3.28 ft tall.   |  |  |
| 3   |                     | 0.0%                      |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |  |  |
| 4<br>5  | 0                   | 0.0%                      |           | in height.   |  |  |
| 6   | 0                   | 0.0%                      |           |  |  |  |
| 7   |                     | 0.0%                      |           | Five Vegetation Strata:  |  |  |
| 8   |                     | 0.0%                      |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |  |  |
|   | 0                   | 0.0%                      |           | diameter at breast height (DBH).   |  |  |
| 9   | 0                   | 0.0%                      |           | Sapling stratum – Consists of woody plants, excluding woody  |  |  |
| 10  |                     | 0.0%                      |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |  |  |
| 11  | 0                   | 0.0%                      |           | Shrub stratum – Consists of woody plants, excluding woody  |  |  |
| 12  |                     | = Total Cove              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |  |  |
| Woody Vine Stratum (Plot size:)                           |                     |                           |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody         |  |  |
| 1   | 0                   | 0.0%                      | ·         | species, except woody vines, less than approximately 3 ft (1   |  |  |
| 2   |                     | 0.0%                      |           | m) in height.  |  |  |
| 3   |                     | 0.0%                      |           | Woody vines – Consists of all woody vines, regardless of   |  |  |
| 4   | 0                   | 0.0%                      |           | height.  |  |  |
| 5   | 0                   | 0.0%                      |           | Hydrophytic  |  |  |
| 6   | 0                   | 0.0%                      |           | Vegetation   |  |  |
|   | 0                   | = Total Cove              | r         | Present? Yes V NO  |  |  |
| Pemarks: (Include photo numbers here or on a senarate she | at )                |                           |           |  |  |  |

Remarks: (Include photo numbers here or on a separate sheet.)

| Profile Descri            | iption: (Describe to              | the depth ne | eded to document           | t the indica  | ator or cor       | nfirm the a            | absence of indicators.)                     |   |
|---------------------------|-----------------------------------|--------------|----------------------------|---------------|-------------------|------------------------|---|---|
| Depth                     | Matrix                            |              |                            | dox Featu     |                   |                        |   |   |
| (inches)                  | Color (moist)                     |              | Color (moist)              | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                                     | Remarks   |
| 0-21                      | 10YR 3/1                          | 100          |                            |               |                   |                        | Loam  |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
| -                         |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               | ·                 |                        |   |   |
|                           | . <u> </u>                        |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
| <sup>1</sup> Type: C=Cond | centration. D=Depletio            | n. RM=Reduce | ed Matrix, CS=Covere       | ed or Coate   | d Sand Gra        | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma                  |   |
| Hydric Soil I             | ndicators:                        |              |                            |               |                   |                        | Indicators for Proble                       | matic Hydric Soils <sup>3</sup> :                     |
| Histosol (A               | 41)                               |              | Dark Surface (             | S7)           |                   |                        | 2 cm Muck (A10)                             |   |
| Histic Epip               | pedon (A2)                        |              | Polyvalue Belov            | w Surface (   | S8) (MLRA         | 147,148)               |   |   |
| Black Hist                |                                   |              | Thin Dark Surfa            | ace (S9) (M   | LRA 147, 1        | 48)                    | Coast Prairie Redo<br>(MLRA 147,148)        | X (A16)   |
|                           | Sulfide (A4)                      |              | Loamy Gleyed               |               |                   |                        | Piedmont Floodpla                           | in Soils (F19)  |
| _                         | Layers (A5)                       |              | Depleted Matri             |               |                   |                        | (MLRA 136, 147)                             |   |
| 2 cm Mucl                 | k (A10) (LRR N)                   |              | Redox Dark Su              |               |                   |                        | Very Shallow Dark                           | Surface (TF12)  |
| Depleted I                | Below Dark Surface (A             | 11)          | Depleted Dark              |               | )                 |                        | Other (Explain in F                         | Remarks)  |
| Thick Dark                | k Surface (A12)                   |              | Redox Depress              |               |                   |                        |   |   |
| Sandy Mu<br>MLRA 147      | ck Mineral (S1) (LRR N<br>7, 148) | Ι,           | Iron-Manganes<br>MLRA 136) |               |                   |                        |   |   |
| Sandy Gle                 | eyed Matrix (S4)                  |              | Umbric Surface             | e (F13) (ML   | RA 136, 12        | 2)                     | 3   | · · · ·   |
| Sandy Red                 | dox (S5)                          |              | Piedmont Floo              | dplain Soils  | (F19) (MLR        | A 148)                 | <sup>3</sup> Indicators of r<br>wetland hyd | nydrophytic vegetation and<br>rology must be present, |
| Stripped N                | Aatrix (S6)                       |              | Red Parent Ma              | iterial (F21) | (MLRA 127         | ', 147)                |   | turbed or problematic.                                |
| Postrictive   ;           | ayer (if observed):               |              |                            |               |                   |                        |   |   |
| Type:                     | ayer (ii observed):               |              |                            |               |                   | İ                      |   |   |
|                           | hes):                             |              |                            |               |                   |                        | Hydric Soil Present?                        | Yes 🔿 No 🖲  |
| • •                       | les).                             |              |                            |               |                   |                        | -   |   |
| Remarks:                  |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |
|                           |                                   |              |                            |               |                   |                        |   |   |

| Project/Site: Telesto Solar Project  | City/County:                | Cecilia/Hardin       | Sampl                                   | ing Date: 24-Fe | te: 24-Feb-21 |  |
|--|-----------------------------|----------------------|---|-----------------|---------------|--|
| Applicant/Owner: 7x Energy   |                             | State: KY            | Sampling Poi                            | int: D          | -045          |  |
| Investigator(s): J. Stelly and C. Hoffmann   | Section, Tow                | nship, Range: S      | т                                       | R               |               |  |
| Landform (hillslope, terrace, etc.): Hillside  | Local relief (co            | ncave, convex, none) | : concave                               | Slope:0.0       | %/°           |  |
| Subregion (LRR or MLRA): LRR N Lat   | .: 3769283                  | Long.:               | -85.95011                               | Datum:          | WGS 1984      |  |
| Soil Map Unit Name: W- Water   |                             |                      | NWI classification:                     | N/A             |               |  |
| Are climatic/hydrologic conditions on the site typical for this time of Are Vegetation, Soil, or Hydrology significant | year? Yes 🖲 ntly disturbed? |                      | ain in Remarks.)<br>umstances" present? | ? Yes ⊙         | No O          |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally   | / problematic?              | (If needed, expla    | in any answers in Re                    | emarks.)        |               |  |
|  |                             |                      |   |                 |               |  |

## Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present? | Yes ●<br>Yes ● | No 〇<br>No 〇 | Is the Sampled Area within a Wetland? |                             |
|---|----------------|--------------|---------------------------------------|-----------------------------|
| Wetland Hydrology Present?                              | Yes 🖲          | No O         |                                       | Yes $\bullet$ No $\bigcirc$ |
| Remarks:  |                |              |                                       |                             |
| Wet-17  |                |              |                                       |                             |
|   |                |              |                                       |                             |
|   |                |              |                                       |                             |

| Wetland Hydrology Indicators:  |   | Secondary Indicators (minimum of two required) |
|--|---|--|
| Primary Indicators (minimum of one r   | equired; check all that apply)                | Surface Soil Cracks (B6)                       |
| Surface Water (A1)   | True Aquatic Plants (B14)                     | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)  | Hydrogen Sulfide Odor (C1)                    | Drainage Patterns (B10)                        |
| Saturation (A3)  | Oxidized Rhizospheres along Living Roots (C3) | Moss Trim Lines (B16)                          |
| Water Marks (B1)   | Presence of Reduced Iron (C4)                 | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)   | Recent Iron Reduction in Tilled Soils (C6)    | Crayfish Burrows (C8)                          |
| Drift deposits (B3)  | Thin Muck Surface (C7)                        | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)  | Other (Explain in Remarks)                    | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B  | 7)  | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)  |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  |   | FAC-neutral Test (D5)                          |
| Field Observations:  | -   |  |
| Surface Water Present? Yes •   | No Depth (inches): 4                          |  |
| Water Table Present? Yes 〇   | No  Depth (inches):                           |  |
|  |   |  |
| Saturation Present?  |   | Hydrology Present? Yes $ullet$ No $igodot$     |
| Saturation Present? Yes O  | Wetland                                       | , .,   |
| Saturation Present? Yes O  | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O  | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               | , .,   |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |
| Saturation Present? Yes O<br>(includes capillary fringe) Yes O<br>Describe Recorded Data (stream gauge | No      Depth (inches): Wetland               |  |

|   |          | Dominant<br>—Species? |                     | Sampling Point: D-045   |
|---|----------|-----------------------|---------------------|---|
|   | Absolute | Rel.Strat.            | Indicator<br>Status | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                 | % Cover  |                       | Status              | Number of Dominant Species  |
| 1   | 0        | 0.0%                  |                     | That are OBL, FACW, or FAC: (A)   |
| 2   |          | 0.0%                  |                     | Total Number of Dominant  |
| 3   |          | 0.0%                  |                     | Species Across All Strata: (B)  |
| 4   | -        | 0.0%                  |                     | Percent of dominant Species   |
| 5   | ~        | 0.0%                  |                     | That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |
| 6   |          | 0.0%                  |                     |   |
| 7   |          | 0.0%                  |                     | Prevalence Index worksheet:   |
| 8   |          | 0.0%                  |                     | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | )        | = Total Cover         |                     | OBL species x 1 =   |
| 1   | ~        | 0.0%                  |                     | FACW species X 2 =140   |
| 2   |          | 0.0%                  |                     | FAC species $0 \times 3 = 0$  |
| 3.  |          | 0.0%                  |                     | FACU species $0 \times 4 = 0$   |
| 4.  |          | 0.0%                  |                     | UPL species x 5 =   |
| 5   |          | 0.0%                  |                     | Column Totals: <u>70</u> (A) <u>140</u> (B)   |
| 6.  |          | 0.0%                  |                     | Prevalence Index = $B/A = 2.000$  |
| 7   |          | 0.0%                  |                     |   |
| 8   |          | 0.0%                  |                     | Hydrophytic Vegetation Indicators:           Image: Constraint of the second sec |
| 9   |          | 0.0%                  |                     |   |
| 10.   |          | 0.0%                  |                     | <b>Dominance Test is</b> > 50%  |
|   |          | = Total Cover         |                     | ✓ Prevalence Index is $\leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                    |          | 0.0%                  |                     | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  |
| 2   |          | 0.0%                  |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 3   |          | 0.0%                  |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 4   |          | 0.0%                  |                     | be present, unless disturbed or problematic.  |
| 5   |          | 0.0%                  |                     | Definition of Vegetation Strata:  |
| 6   |          | 0.0%                  |                     | Four Vegetation Strata:   |
| 7   | 0        | 0.0%                  |                     | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless  |
| Herb Stratum (Plot size:)                                 | 0        | = Total Cover         |                     | of height.  |
|   | 70       | ✓ 100.0%              | FACW                | Sapling/shrub stratum – Consists of woody plants, excluding   |
| 1. Cyperus esculentus       2                             | 0        | 0.0%                  |                     | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3   |          | 0.0%                  |                     | regardless of size, and all other plants less than 3.28 ft tall.  |
| 4   | 0        | 0.0%                  |                     | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 5   | 0        | 0.0%                  |                     | in height.  |
| 6.  | 0        | 0.0%                  |                     |   |
| 7   |          | 0.0%                  |                     | Five Vegetation Strata:   |
| 8.  |          | 0.0%                  |                     | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9.  | 0        | 0.0%                  |                     | diameter at breast height (DBH).  |
| 10  | 0        | 0.0%                  |                     | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less  |
| 11  |          | 0.0%                  |                     | than 3 in. (7.6 cm) DBH.  |
| 12.   |          | 0.0%                  |                     | Shrub stratum – Consists of woody plants, excluding woody   |
| Woody Vine Stratum (Plot size:)                           |          | = Total Cover         |                     | vines, approximately 3 to 20 ft (1 to 6 m) in height.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,  |
|   | 0        | 0.0%                  |                     | including herbaceous vines, regardless of size, and woody   |
| 12  |          | 0.0%                  |                     | species, except woody vines, less than approximately 3 ft (1 m) in height.  |
| 2   |          | 0.0%                  |                     | Woody vines – Consists of all woody vines, regardless of  |
| 3   | -        | 0.0%                  |                     | height.   |
| 4   |          | 0.0%                  |                     |   |
| 5   | 0        | 0.0%                  |                     | Hydrophytic   |
| 6   | 0        | = Total Cove          |                     | Vegetation<br>Present? Yes O No O   |
| Remarks: (Include photo numbers here or on a separate she |          |                       |                     |   |

| Profile Descr            | ription: (Describe to              | the depth  | needed to docume     | ent the indi   | cator or co  | nfirm the a           | absence of indicators.)                               |   |  |
|--------------------------|------------------------------------|------------|----------------------|----------------|--------------|-----------------------|---|---|--|
| Depth                    | Matrix                             |            |                      | Redox Featu    | 1            |                       |   |   |  |
| (inches)                 | Color (moist)                      | %          | <u>Color (moist)</u> |                |              | Loc <sup>2</sup>      | Texture   | Remarks   |  |
| 0-21                     | 10YR 3/1                           | 90         | 5YR 4/6              | 10             | C            | M                     | Loam  |   |  |
|                          |                                    |            | . <u> </u>           |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            | u U                  |                |              |                       |   |   |  |
|                          | ·                                  |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            | . <u> </u>           |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                | _            |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
| <sup>1</sup> Type: C=Con | centration. D=Depletic             | on. RM=Red | uced Matrix. CS=Cov  | vered or Coat  | ed Sand Gra  | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=N                             | atrix   |  |
| Hydric Soil              | -                                  | · · · ·    |                      |                |              |                       |   |   |  |
| Histosol (               |                                    |            | Dark Surfac          | e (S7)         |              |                       |   | ematic Hydric Soils <sup>3</sup> :                  |  |
|                          | pedon (A2)                         |            |                      | elow Surface   | (S8) (MI RA  | 147 148)              | 2 cm Muck (A10)                                       | (MLRA 147)  |  |
| Black His                | •                                  |            |                      | urface (S9) (I |              |                       | Coast Prairie Red                                     | ox (A16)  |  |
|                          | n Sulfide (A4)                     |            |                      | ed Matrix (F2  |              | 40)                   | (MLRA 147,148)  |   |  |
|                          | Layers (A5)                        |            | Depleted Ma          |                | )            |                       | Piedmont Floodp                                       | ain Soils (F19)                                     |  |
|                          | :k (A10) (LRR N)                   |            |                      | Surface (F6)   |              |                       | (MLRA 136, 147)                                       |   |  |
|                          |                                    | 11)        |                      | irk Surface (F | 7)           |                       | Very Shallow Dar                                      |   |  |
|                          | Below Dark Surface (A              | (11)       | Redox Depr           |                | ")           |                       | Other (Explain in                                     | Remarks)  |  |
|                          | k Surface (A12)                    |            |                      | nese Masses    | (F12) (I DD  | N                     |   |   |  |
| MLRA 14                  | uck Mineral (S1) (LRR 1<br>7, 148) | Ν,         | MLRA 136)            | 1636 10103363  |              | л,                    |   |   |  |
|                          | eyed Matrix (S4)                   |            | Umbric Surf          | ace (F13) (M   | LRA 136, 12  | 2)                    |   |   |  |
| Sandy Re                 |                                    |            | Piedmont FI          | oodplain Soil  | s (F19) (MLF | RA 148)               | <sup>3</sup> Indicators of hydrophytic vegetation and |   |  |
|                          | Matrix (S6)                        |            | _                    | Material (F21  |              |                       |   | drology must be present,<br>sturbed or problematic. |  |
| · · · · · · · ·          |                                    |            |                      |                | , (          | .,,                   |   |   |  |
| Restrictive L            | ayer (if observed):                |            |                      |                |              |                       |   |   |  |
| Туре:                    |                                    |            |                      |                |              |                       |   |   |  |
| Depth (inc               | hes):                              |            |                      |                |              |                       | Hydric Soil Present?                                  | Yes 🔍 No 🔾  |  |
| Remarks:                 |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |
|                          |                                    |            |                      |                |              |                       |   |   |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampli                                    | ing Date: 24-F | eb-21      |
|--|------------------|---------------------|---|----------------|------------|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poi                              | nt: D          | -046       |
| Investigator(s): J. Stelly and C. Hoffmann   | Section, Tow     | nship, Range: S     | т   | R              |            |
| Landform (hillslope, terrace, etc.):   | Local relief (co | ncave, convex, none | ):  | Slope:         | %/°        |
| Subregion (LRR or MLRA): LRR N Lat.:   | 37.69195         | Long.:              | -85.95038                                 | Datum          | : WGS 1984 |
| Soil Map Unit Name: Sonora silt loam (2 to 6 percent slopes)   |                  |                     | NWI classification:                       | PUBH           |            |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                     | lain in Remarks.)<br>:umstances" present? | Yes 🖲          | No O       |
| Are Vegetation, Soil, or Hydrology naturally p   | problematic?     | (If needed, expl    | ain any answers in Re                     | emarks.)       |            |
| Summary of Findings - Attach site map showing s  | ampling po       | int locations,      | transects, impo                           | ortant feat    | ures, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes         No         ●           Yes         No         ●           Yes         No         ● | Is the Sampled Area Yes  No  Ves Ves Ves Ves Ves Ves Ves Ves Ves Ves |
|---|--|--|
| Remarks:  |  |  |

# Hydrology

| Wetland Hydrology Indicators:          |             |   | Secondary Indicators (minimum of two required) |
|--|-------------|---|--|
| Primary Indicators (minimum of one     | required; c | heck all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                     |             | True Aquatic Plants (B14)                         | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                  |             | Hydrogen Sulfide Odor (C1)                        | Drainage Patterns (B10)                        |
| Saturation (A3)                        |             | Oxidized Rhizospheres along Living Roots (C3)     | Moss Trim Lines (B16)                          |
| Water Marks (B1)                       |             | Presence of Reduced Iron (C4)                     | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                 |             | Recent Iron Reduction in Tilled Soils (C6)        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                    |             | Thin Muck Surface (C7)                            | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                |             | Other (Explain in Remarks)                        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                     |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery ( | (B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)              |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                    |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                    | 0           |   |  |
| Surface Water Present? Yes O           | No 🖲        | Depth (inches):                                   |  |
| Water Table Present? Yes $\bigcirc$    | No 🖲        | Depth (inches):                                   | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present? Yes O              | No 🖲        | Wetland<br>Depth (inches):                        | I Hydrology Present? Yes 🔾 No 🖲                |
| Describe Recorded Data (stream gauge   | ge, monitor | ing well, aerial photos, previous inspections), i | f available:                                   |
|  |             |   |  |
| Remarks:                               |             |   |  |
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|  |             |   |  |
|  |             |   |  |
| Describe Recorded Data (stream gau     |             |   | f available:                                   |

|  |                     | Dominant                                   |                     | Sampling Point: <b>D-046</b>   |
|--|---------------------|--|---------------------|--|
| Tree Stratum (Plot size:)                                  | Absolute<br>% Cover | -Species? -<br>Rel.Strat.<br>Cover         | Indicator<br>Status | Dominance Test worksheet:  |
| 1  | 0                   | 0.0%                                       |                     | Number of Dominant Species<br>That are OBL, FACW, or FAC: 0 (A)  |
|  |                     | 0.0%                                       |                     |  |
| 2  |                     | 0.0%                                       |                     | Total Number of Dominant   |
| 3  |                     | 0.0%                                       |                     | Species Across All Strata: (B)   |
| 4  |                     | 0.0%                                       |                     | Percent of dominant Species  |
| 5  |                     | 0.0%                                       |                     | That Are OBL, FACW, or FAC: 0.0% (A/B)   |
| 7  |                     | 0.0%                                       |                     | Prevalence Index worksheet:  |
| 8  |                     | 0.0%                                       |                     | Total % Cover of: Multiply by:   |
|  |                     | = Total Cover                              |                     | OBL species $0 \times 1 = 0$   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |                     | _  |                     | FACW species $0 \times 2 = 0$  |
| 1  |                     | 0.0%                                       |                     | FAC species $0 \times 3 = 0$   |
| 2  | 0                   | 0.0%                                       |                     |  |
| 3  | 0                   | 0.0%                                       |                     |  |
| 4  | 0                   | 0.0%                                       |                     | UPL species $0 \times 5 = 0$   |
| 5  | 0                   | 0.0%                                       |                     | Column Totals: <u>50</u> (A) <u>200</u> (B)  |
| 6  | 0                   | 0.0%                                       |                     | Prevalence Index = $B/A = 4.000$   |
| 7  | 0                   | 0.0%                                       |                     | Hydrophytic Vegetation Indicators:   |
| 8  | 0                   | 0.0%                                       |                     | Rapid Test for Hydrophytic Vegetation  |
| 9  | 0                   | 0.0%                                       |                     | Dominance Test is > 50%  |
| 10   | 0                   | 0.0%                                       |                     | $\square \text{ Prevalence Index is } 3.0^{-1}$  |
| Shrub Stratum_ (Plot size:)                                |                     | = Total Cover                              | -                   | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| <u> </u>   | 0                   | 0.0%                                       |                     | data in Remarks or on a separate sheet)  |
| 2  | 0                   | 0.0%                                       |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  | 0                   | 0.0%                                       |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |                     | 0.0%                                       |                     | be present, unless disturbed or problematic.   |
| 5  |                     | 0.0%                                       |                     | Definition of Vegetation Strata:   |
| 6  |                     | 0.0%                                       |                     | Four Vegetation Strata:  |
| 7  | 0                   | 0.0%                                       |                     | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| Herb Stratum (Plot size:)                                  | 0 =                 | = Total Cover                              |                     | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |
|  |                     | _  |                     | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1. Echinochioa crusgalli                                   | <br>0               | <ul> <li>✓ 100.0%</li> <li>0.0%</li> </ul> | FACU                | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  |                     |  | - <u></u>           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0                   | 0.0%                                       |                     | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4  | 0                   | 0.0%                                       | ·                   | in height.   |
| 5  | 0                   | 0.0%                                       | ·                   |  |
| 6  | 0                   | 0.0%                                       | ·                   | Five Vegetation Strata:  |
| 7  | 0                   | 0.0%                                       |                     | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8  |                     |  |                     | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).                                    |
| 9  | 0                   | 0.0%                                       |                     | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   | 0                   | 0.0%                                       |                     | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11   | 0                   | 0.0%                                       |                     | Shrub stratum – Consists of woody plants, excluding woody  |
| 12   | 0                   | 0.0% 0.0%                                  |                     | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| <u>Woody Vine Stratum</u> (Plot size:)                     | 50 =                |  |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1  | 0                   | 0.0%                                       |                     | including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1         |
| 2  | 0                   | 0.0%                                       |                     | m) in height.  |
| 3  | 0                   | 0.0%                                       |                     | Woody vines – Consists of all woody vines, regardless of   |
| 4  | 0                   | 0.0%                                       |                     | height.  |
| 5  | 0                   | 0.0%                                       |                     | Hydrophytic  |
| 6  | 0                   | 0.0%                                       |                     | Vegetation   |
|  | 0                   | = Total Cove                               | r                   | Present? Yes No 💿  |
| Remarks: (Include photo numbers here or on a separate shee | + )                 |  |                     |  |

ep

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |  |              |                    |               |                   |                        |                              |                                    |
|---|--|--------------|--------------------|---------------|-------------------|------------------------|------------------------------|------------------------------------|
| Depth   | Matrix                                       |              |                    | dox Featur    |                   |                        |                              |                                    |
| (inches)  | Color (moist)                                |              | Color (moist)      | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                      | Remarks                            |
| 0-21  | 10YR 3/1                                     | 100          |                    |               |                   |                        | Loam                         |                                    |
|   |  |              |                    |               |                   |                        | v                            |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   | <u>.                                    </u> |              | <u>_</u>           |               |                   |                        |                              |                                    |
|   | <u>.                                    </u> |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  | n. RM=Reduce | d Matrix, CS=Cover | ed or Coated  | d Sand Grai       | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma   | atrix                              |
| Hydric Soil I   |  |              | _                  |               |                   |                        | Indicators for Proble        | ematic Hydric Soils <sup>3</sup> : |
| Histosol (A   |  |              | Dark Surface (     |               |                   |                        | 2 cm Muck (A10)              | (MLRA 147)                         |
|   | bedon (A2)                                   |              | Polyvalue Belo     |               |                   |                        | Coast Prairie Redo           |                                    |
| Black Histi   |  |              | Thin Dark Surf     |               | LRA 147, 1        | 48)                    | (MLRA 147,148)               |                                    |
|   | Sulfide (A4)                                 |              | Loamy Gleyed       |               |                   |                        | Piedmont Floodpla            | ain Soils (F19)                    |
|   | Layers (A5)                                  |              | Depleted Matri     |               |                   |                        | (MLRA 136, 147)              |                                    |
|   | k (A10) (LRR N)                              |              | Redox Dark Su      |               | N                 |                        | Very Shallow Dark            |                                    |
|   | Below Dark Surface (A                        | 11)          | Depleted Dark      |               | )                 |                        | Other (Explain in            | Remarks)                           |
|   | k Surface (A12)                              |              | Iron-Manganes      |               | [12] (I RR 1      |                        |                              |                                    |
| Sandy Mue<br>MLRA 147   | ck Mineral (S1) (LRR N<br>7, 148)            | 1,           | MLRA 136)          |               |                   |                        |                              |                                    |
|   | eyed Matrix (S4)                             |              | Umbric Surface     |               |                   |                        | <sup>3</sup> Indicators of I | hydrophytic vegetation and         |
| Sandy Rec   |  |              | Piedmont Floo      |               |                   |                        | wetland hyd                  | Irology must be present,           |
| Stripped N  | /atrix (S6)                                  |              | Red Parent Ma      | iterial (F21) | (MLRA 127         | ′, 147)                | unless dis                   | sturbed or problematic.            |
| Restrictive La  | ayer (if observed):                          |              |                    |               |                   |                        |                              |                                    |
| Туре:   |  |              |                    |               |                   |                        |                              | ~ ~                                |
| Depth (inch   | hes):  |              |                    |               |                   |                        | Hydric Soil Present?         | Yes 🔿 No 🖲                         |
| Remarks:  |  |              |                    |               |                   |                        | I                            |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
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|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
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|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |
|   |  |              |                    |               |                   |                        |                              |                                    |

| Project/Site: Telesto Solar Project   | City/County:                   | Cecilia/Hardin      | Samp                                     | ling Date: 24- | e: 24-Feb-21 |  |
|---|--------------------------------|---------------------|--|----------------|--------------|--|
| Applicant/Owner: 7x Energy  |                                | State: KY           | Sampling Po                              | oint:          | D-047        |  |
| Investigator(s): J. Stelly and C. Hoffmann  | Section, Tow                   | nship, Range: S     | т  | R              |              |  |
| Landform (hillslope, terrace, etc.):  | Local relief (co               | ncave, convex, none | ):                                       | Slope:0.0      | %/°          |  |
| Subregion (LRR or MLRA): LRR N La   | t.: 37.69129                   | Long.:              | -85.95219                                | Datur          | n: WGS 1984  |  |
| Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes   |                                |                     | NWI classification                       | : N/A          |              |  |
| Are climatic/hydrologic conditions on the site typical for this time of<br>Are Vegetation, Soil, or Hydrology significa | f year? Yes 🖲 antly disturbed? |                     | lain in Remarks.)<br>sumstances" present | ? Yes ⊙        | No O         |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturall   | y problematic?                 | (If needed, expl    | ain any answers in R                     | emarks.)       |              |  |
|   |                                |                     |  |                |              |  |

# Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | Yes 🖲 | No 🔿 |                     |            |
|---------------------------------|-------|------|---------------------|------------|
| Hydric Soil Present?            | Yes 🖲 | No 🔿 | Is the Sampled Area | Yes 🔿 No 🖲 |
| Wetland Hydrology Present?      | Yes 🖲 | No O | within a Wetland?   |            |
| Remarks:                        |       |      |                     |            |
| Wet-18                          |       |      |                     |            |
|                                 |       |      |                     |            |
|                                 |       |      |                     |            |

| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one required; check all that apply)             | Surface Soil Cracks (B6)                       |
| Surface Water (A1)   | Sparsely Vegetated Concave Surface (B8)        |
| ✓ High Water Table (A2)  | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Liv                                | ing Roots (C3) Moss Trim Lines (B16)           |
| Water Marks (B1)   | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)   | Soils (C6) Crayfish Burrows (C8)               |
| Drift deposits (B3) Thin Muck Surface (C7)                                     | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4) Other (Explain in Remarks)                             | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)                                      | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  | FAC-neutral Test (D5)                          |
| Field Observations:  |  |
| Surface Water Present? Yes  No Depth (inches): 4                               | _  |
| Water Table Present? Yes O No O Depth (inches): 1                              | ── Wetland Hydrology Present? Yes ● No ◯       |
| Saturation Present? Yes O No Depth (inches): 1                                 | Wetland Hydrology Present? Yes   No            |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous | inspections), if available:                    |
|  |  |
| Remarks:   |  |
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|  |          | Dominant                   |           | Sampling Point: <b>D-047</b>  |
|--|----------|----------------------------|-----------|---|
|  | Absolute | - Species? -<br>Rel.Strat. | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                      | Status    | Number of Dominant Species  |
| 1  | 0        | 0.0%                       |           | That are OBL, FACW, or FAC: (A)   |
| 2  | 0        | 0.0%                       |           |   |
| 3  | 0        | 0.0%                       |           | Total Number of Dominant<br>Species Across All Strata: 1 (B)  |
| 4  | -        | 0.0%                       | -         |   |
| 5  |          | 0.0%                       |           | Percent of dominant Species   |
| 6.   |          | 0.0%                       |           | That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |
| 7.   |          | 0.0%                       |           | Prevalence Index worksheet:   |
| 8.   |          | 0.0%                       |           | Total % Cover of: Multiply by:  |
|  |          | = Total Cover              |           | <b>OBL species</b> 0 x 1 = 0  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |          |                            |           | FACW species $70 \times 2 = 140$  |
| 1  | 0        | 0.0%                       |           |   |
| 2  | 0        | 0.0%                       |           | FAC species $0 \times 3 = 0$  |
| 3  | 0        | 0.0%                       |           | FACU species $0 \times 4 = 0$   |
| 4  | 0        | 0.0%                       |           | UPL species x 5 =   |
| 5  | 0        | 0.0%                       |           | Column Totals: (A) (B)  |
| 6  | 0        | 0.0%                       | -         | Prevalence Index = $B/A = 2.000$  |
| 7.   | _        | 0.0%                       |           |   |
| 8  | _        | 0.0%                       |           | Hydrophytic Vegetation Indicators:      Rapid Test for Hydrophytic Vegetation   |
| 9  |          | 0.0%                       |           |   |
| 10.  |          | 0.0%                       |           | ✓ Dominance Test is > 50%   |
|  |          | = Total Cover              |           | ✓ Prevalence Index is $\leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:) 1                        | :        |                            |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                          |
|  | 0        | 0.0%                       |           | $\Box$ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2  |          | 0.0%                       |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 3  |          | 0.0%                       |           | be present, unless disturbed or problematic.  |
| 4  |          | 0.0%                       |           | Definition of Vegetation Strata:  |
| 5  |          |                            |           | Four Vegetation Strata:   |
| 6  |          | 0.0%                       |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |
| 7  | 0        | 0.0%                       |           | (7.6 cm) or more in diameter at breast height (DBH), regardless   |
| Herb Stratum (Plot size:)                                  | 0 :      | = Total Cover              | -         | of height.  |
| 1. Cyperus esculentus                                      | 70       | ✔ 100.0%                   | FACW      | Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2  | 0        | 0.0%                       |           | Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 3  | 0        | 0.0%                       |           | regardless of size, and all other plants less than 3.28 ft tall.  |
| 4  | 0        | 0.0%                       |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 5  | 0        | 0.0%                       |           | in height.  |
| 6  | 0        | 0.0%                       |           | Five Vegetation Strata:   |
| 7  | 0        | 0.0%                       |           | -   |
| 8.   | 0        | 0.0%                       |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in     |
| 9.   | 0        | 0.0%                       |           | diameter at breast height (DBH).  |
| 10   | 0        | 0.0%                       |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less  |
| 11   | 0        | 0.0%                       |           | than 3 in. (7.6 cm) DBH.  |
| 12   | 0        | 0.0%                       |           | Shrub stratum – Consists of woody plants, excluding woody   |
|  |          | = Total Cover              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| Woody Vine Stratum (Plot size: )                           |          |                            |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody  |
| 1  | 0        | 0.0%                       | ·         | species, except woody vines, less than approximately 3 ft (1  |
| 2  |          | 0.0%                       |           | m) in height.   |
| 3  |          | 0.0%                       |           | Woody vines – Consists of all woody vines, regardless of<br>height.   |
| 4  | 0        | 0.0%                       |           |   |
| 5  | 0        | 0.0%                       |           | Hydrophytic   |
| 6  | 0        | 0.0%                       |           | Vegetation  |
|  | 0        | = Total Cove               | r         | Present? Yes Vo U   |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |                            |           |   |

| Profile Desci            | •                                  | the depth   |  |               |              | nfirm the a            | absence of indicators.)   |                                    |  |
|--------------------------|------------------------------------|-------------|--|---------------|--------------|------------------------|---|------------------------------------|--|
| Depth                    | Matrix                             |             |  | Redox Featu   | 1            |                        |   |                                    |  |
| (inches)                 | Color (moist)                      | %           | Color (moist)                                | %             |              | Loc <sup>2</sup>       | Texture   | Remarks                            |  |
| 0-21                     | 10YR 3/3                           | 90          | 5YR 4/6                                      | 10            | C            | M                      | Loam  |                                    |  |
|                          | · · · · ·                          |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          | p                                  |             |  |               |              |                        | -   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          | p                                  |             | · ·  |               |              |                        |   |                                    |  |
|                          | · · · · ·                          |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    | _           |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
| <sup>1</sup> Type: C=Cor | centration. D=Depletio             | on. RM=Redu | uced Matrix, CS=Cove                         | ered or Coat  | ed Sand Gra  | ains <sup>2</sup> Loca | tion: PL=Pore Lining. M=M   | atrix                              |  |
| Hydric Soil              |                                    |             |  |               |              |                        |   |                                    |  |
| Histosol (               |                                    |             | Dark Surface                                 | (\$7)         |              |                        | _   | ematic Hydric Soils <sup>3</sup> : |  |
|                          | ipedon (A2)                        |             | Polyvalue Be                                 | • •           | (S8) (MI RA  | 147 148)               | 2 cm Muck (A10)   | (MLRA 147)                         |  |
| Black His                |                                    |             | Thin Dark Su                                 |               |              |                        | Coast Prairie Red   | ox (A16)                           |  |
|                          | n Sulfide (A4)                     |             | Loamy Gleye                                  |               |              | 140)                   | (MLRA 147,148)  |                                    |  |
|                          | Layers (A5)                        |             |  |               | )            |                        | Piedmont Floodpl  | ain Soils (F19)                    |  |
|                          | ck (A10) (LRR N)                   |             | Depleted Matrix (F3) Redox Dark Surface (F6) |               |              |                        | (MLRA 136, 147)   |                                    |  |
|                          |                                    | 11)         | Depleted Dark Surface (F7)                   |               |              |                        | Very Shallow Dar  |                                    |  |
|                          | Below Dark Surface (A              | ATT)        | Redox Depressions (F8)                       |               |              |                        | Other (Explain in   | Remarks)                           |  |
|                          | rk Surface (A12)                   |             | Iron-Mangan                                  |               | (F12) (I DD  | N                      |   |                                    |  |
| MLRA 14                  | uck Mineral (S1) (LRR  <br>7. 148) | Ν,          | MLRA 136)                                    | 636 10123363  |              | IN,                    |   |                                    |  |
|                          | eyed Matrix (S4)                   |             | Umbric Surfa                                 | ace (F13) (M  | LRA 136, 12  | 22)                    |   |                                    |  |
| Sandy Re                 |                                    |             | Piedmont Flo                                 | odplain Soil: | s (F19) (MLI | RA 148)                | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic. |                                    |  |
|                          | Matrix (S6)                        |             | Red Parent M                                 |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               | , (          | ., ,                   |   |                                    |  |
| Restrictive L            | ayer (if observed):                |             |  |               |              |                        |   |                                    |  |
| Туре:                    |                                    |             |  |               |              |                        |   |                                    |  |
| Depth (inc               | ches):                             |             |  |               |              |                        | Hydric Soil Present?  | Yes 🖲 No 🔾                         |  |
| Remarks:                 |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
|                          |                                    |             |  |               |              |                        |   |                                    |  |
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|                          |                                    |             |  |               |              |                        |   |                                    |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampli                | eb-21      |            |
|--|------------------|---------------------|-----------------------|------------|------------|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poi          | nt: C      | 0-048      |
| Investigator(s): J. Stelly and C. Hoffmann                                 | Section, Tow     | nship, Range: S     | т                     | R          |            |
| Landform (hillslope, terrace, etc.):                                       | Local relief (co | ncave, convex, none | ):                    | Slope: 0.0 | %/°        |
| Subregion (LRR or MLRA): LRR N Lat.:                                       | 37.69589         | Long.:              | -85.95358             | Datum      | : WGS 1984 |
| Soil Map Unit Name: Riney loam (12 to 20 percent slopes)                   |                  |                     | NWI classification:   | N/A        |            |
| Are climatic/hydrologic conditions on the site typical for this time of ye | ear? Yes 🖲       | No 🔿 🛛 (If no, exp  | olain in Remarks.)    | $\sim$     | $\sim$     |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant                     | ly disturbed?    | Are "Normal Circ    | cumstances" present?  | yes 🔍      | No 🔾       |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p                     | oroblematic?     | (If needed, expl    | ain any answers in Re | emarks.)   |            |
| Summary of Findings Attach site man showing s                              | ompling pr       | int locations       | trancasta imna        | rtant faat | urac ata   |

| Summary of Findings - | Attach site map snowing | g sampling point loca | ations, transects, important | reatures, etc. |
|-----------------------|-------------------------|-----------------------|------------------------------|----------------|
|                       |                         |                       |                              |                |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ()<br>Yes ()<br>Yes () | No | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $oldsymbol{igen}$ |
|---|----------------------------|----|---------------------------------------|-------------------------------------|
| Remarks:  |                            |    |                                       |                                     |
|   |                            |    |                                       |                                     |
|   |                            |    |                                       |                                     |
|   |                            |    |                                       |                                     |

# Hydrology

| Wetland Hydrology Indicate  | ors:                    |                      |   | Secondary Indicators (minimum of two required)  |
|---|-------------------------|----------------------|---|---|
| Primary Indicators (minimu  | um of one               | required;            | check all that apply)   | Surface Soil Cracks (B6)  |
| Surface Water (A1)  |                         |                      | True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)   |
| High Water Table (A2)   |                         |                      | Hydrogen Sulfide Odor (C1)  | Drainage Patterns (B10)   |
| Saturation (A3)   |                         |                      | Oxidized Rhizospheres along Living Roots (C3)   | Moss Trim Lines (B16)   |
| Water Marks (B1)  |                         |                      | Presence of Reduced Iron (C4)   | Dry Season Water Table (C2)   |
| Sediment Deposits (B2)  |                         |                      | Recent Iron Reduction in Tilled Soils (C6)  | Crayfish Burrows (C8)   |
| Drift deposits (B3)   |                         |                      | Thin Muck Surface (C7)  | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)   |                         |                      | Other (Explain in Remarks)  | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)  |                         |                      |   | Geomorphic Position (D2)  |
| Inundation Visible on Aeria   | al Imagery (            | B7)                  |   | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)   | )                       |                      |   | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)   |                         |                      |   | FAC-neutral Test (D5)   |
| Field Observations:   | 0                       | 0                    |   |   |
| Surface Water Present?  | Yes $\bigcirc$          | No 🔍                 | Depth (inches):   |   |
| Water Table Present?  | $_{ m Yes}$ $\bigcirc$  | No 🖲                 | Depth (inches):   |   |
| Saturation Present?<br>(includes capillary fringe)  | $_{\rm Yes} \bigcirc$   | No 🖲                 | Wetlan<br>Depth (inches):   | d Hydrology Present? Yes 🔾 No 👻   |
| Describe Recorded Data (st  | tream gauç              | ge, monito           | ring well, aerial photos, previous inspections),  | if available:   |
|   |                         |                      |   |   |
| Remarks:  |                         |                      |   |   |
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|   |                         |                      |   |   |
| Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st | Yes O<br>Yes O<br>Yes O | No 🔍<br>No 🔍<br>No 💿 | Thin Muck Surface (C7)  Other (Explain in Remarks)  Depth (inches): Depth (inches): Depth (inches): Wetland | Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-neutral Test (D5) |

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|  |          |           | minant              |           | Sampling Point: <b>D-048</b>   |
|--|----------|-----------|---------------------|-----------|--|
|  | Absolute | Rel       | ecies? -<br>.Strat. | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  | 001       | /er                 | Status    | Number of Dominant Species   |
| 1. Acer nigrum   | 40       | ✓         | 44.4%               | FACU      | That are OBL, FACW, or FAC: (A)  |
| 2. Celtis occidentalis                                     | 30       |           | 33.3%               | FACU      | Total Number of Dominant   |
| 3. Ulmus americana   |          |           | 22.2%               | FACW      | Species Across All Strata: <u>3</u> (B)  |
| 4  | -        |           | 0.0%                |           | Demont of dominant Creation  |
| 5  |          |           | 0.0%                |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)  |
| 6  |          |           | 0.0%                |           |  |
| 7  |          |           | 0.0%                |           | Prevalence Index worksheet:  |
| 8  |          |           | 0.0%                |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | 90       | = Tot     | al Cover            |           | OBL species x 1 =  |
| 1.   |          |           | 0.0%                |           | FACW species $20 \times 2 = 40$  |
| 2  |          |           | 0.0%                |           | FAC species $0 \times 3 = 0$   |
| 3  |          |           | 0.0%                |           | <b>FACU speci es</b> $70$ <b>x 4 =</b> $280$   |
| 4.   |          |           | 0.0%                |           | UPL species x 5 =  |
| 5  |          |           | 0.0%                | <u>.</u>  | Column Totals: <u>90</u> (A) <u>320</u> (B)  |
| 6.   | _        |           | 0.0%                | 1         | Prevalence Index = B/A = 3.556   |
| 7  |          |           | 0.0%                |           |  |
| 8  |          |           | 0.0%                |           | Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation  |
| 9  |          |           | 0.0%                |           |  |
| 10.  |          |           | 0.0%                |           | $\Box \text{ Dominance Test is } > 50\%$   |
|  |          | = Tot     | al Cover            |           | Prevalence Index is $\leq 3.0^{-1}$  |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        |           | 0.0%                |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                 |
| 2  | 0        |           | 0.0%                |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          |           | 0.0%                |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          |           | 0.0%                |           | be present, unless disturbed or problematic.   |
| 5  | 0        |           | 0.0%                |           | Definition of Vegetation Strata:   |
| 6  |          |           | 0.0%                |           | Four Vegetation Strata:  |
| 7  | 0        |           | 0.0%                |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum (Plot size:)                                  | 0        | = Tot     | al Cover            |           | of height.   |
| 1  | 0        | $\square$ | 0.0%                |           | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 2.   | 0        | $\square$ | 0.0%                |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 3  | 0        | $\square$ | 0.0%                |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4  | 0        |           | 0.0%                |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5  | 0        |           | 0.0%                | <u>.</u>  | in height.   |
| 6.   | 0        |           | 0.0%                | 1         | Five Vegetation Strates  |
| 7.   |          |           | 0.0%                |           | Five Vegetation Strata:  |
| 8.   |          |           | 0.0%                |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |
| 9  | 0        |           | 0.0%                |           | diameter at breast height (DBH).   |
| 10   | 0        |           | 0.0%                |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |
| 11   | 0        |           | 0.0%                |           | than 3 in. (7.6 cm) DBH.   |
| 12   | 0        |           | 0.0%                |           | Shrub stratum – Consists of woody plants, excluding woody  |
| Woody Vine Stratum (Plot size:)                            |          | = Tot     | al Cover            |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,             |
| 1,   | 0        | $\square$ | 0.0%                |           | including herbaceous vines, regardless of size, and woody  |
| 2  |          |           | 0.0%                |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
|  |          |           | 0.0%                |           | Woody vines – Consists of all woody vines, regardless of   |
| 3  | -        |           | 0.0%                |           | height.  |
| 4  |          |           | 0.0%                |           |  |
| 5  | 0        |           | 0.0%                |           | Hydrophytic<br>Vegetation  |
| 0  |          |           | tal Cove            |           | Present? Yes No 🖲  |
| Remarks: (Include photo numbers here or on a separate shee |          |           |                     |           |  |

F

| Profile Descr        | iption: (Describe to                         | the depth ne | eded to document   | t the indica  | ator or cor       | nfirm the a            | absence of indicators.)      |                                    |
|----------------------|--|--------------|--------------------|---------------|-------------------|------------------------|------------------------------|------------------------------------|
| Depth                | Matrix                                       |              |                    | dox Featur    |                   |                        |                              |                                    |
| (inches)             | Color (moist)                                |              | Color (moist)      | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                      | Remarks                            |
| 0-21                 | 10YR 3/3                                     | 100          |                    |               |                   |                        | Loam                         |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
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|                      | <u>.                                    </u> |              | <u>_</u>           |               |                   |                        |                              |                                    |
|                      | <u>.                                    </u> |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
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|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  | n. RM=Reduce | d Matrix, CS=Cover | ed or Coated  | d Sand Grai       | ins <sup>2</sup> Locat | tion: PL=Pore Lining. M=Ma   | atrix                              |
| Hydric Soil I        |  |              | _                  |               |                   |                        | Indicators for Proble        | ematic Hydric Soils <sup>3</sup> : |
| Histosol (           |  |              | Dark Surface (     |               |                   |                        | 2 cm Muck (A10)              | (MLRA 147)                         |
|                      | bedon (A2)                                   |              | Polyvalue Belo     |               |                   |                        | Coast Prairie Redo           |                                    |
| Black Hist           |  |              | Thin Dark Surf     |               | LRA 147, 1        | 48)                    | (MLRA 147,148)               |                                    |
|                      | Sulfide (A4)                                 |              | Loamy Gleyed       |               |                   |                        | Piedmont Floodpla            | ain Soils (F19)                    |
| _                    | Layers (A5)                                  |              | Depleted Matri     |               |                   |                        | (MLRA 136, 147)              |                                    |
|                      | k (A10) (LRR N)                              |              | Redox Dark Su      |               | N                 |                        | Very Shallow Dark            |                                    |
|                      | Below Dark Surface (A                        | 11)          | Depleted Dark      |               | )                 |                        | Other (Explain in            | Remarks)                           |
|                      | k Surface (A12)                              |              | Iron-Manganes      |               | [12] (I RR 1      | 4                      |                              |                                    |
| Sandy Mu<br>MLRA 147 | ck Mineral (S1) (LRR N<br>7, 148)            | 1,           | MLRA 136)          |               |                   |                        |                              |                                    |
|                      | eyed Matrix (S4)                             |              | Umbric Surface     |               |                   |                        | <sup>3</sup> Indicators of I | hydrophytic vegetation and         |
| Sandy Red            |  |              | Piedmont Floo      |               |                   |                        | wetland hyd                  | Irology must be present,           |
| Stripped N           | /latrix (S6)                                 |              | Red Parent Ma      | iterial (F21) | (MLRA 127         | , 147)                 | unless dis                   | sturbed or problematic.            |
| Restrictive La       | ayer (if observed):                          |              |                    |               |                   |                        |                              |                                    |
| Туре:                |  |              |                    |               |                   |                        |                              | ~ ~                                |
| Depth (incl          | hes):  |              |                    |               |                   |                        | Hydric Soil Present?         | Yes 🔿 No 🖲                         |
| Remarks:             |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
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|                      |  |              |                    |               |                   |                        |                              |                                    |
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|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |
|                      |  |              |                    |               |                   |                        |                              |                                    |

| Project/Site: Telesto Solar Project             | City/County:                                | Cecilia/Hardin       | Sam  | Sampling Date: 24-Feb-21 |                            |  |
|---|---|----------------------|--|--------------------------|----------------------------|--|
| Applicant/Owner: 7x Energy                      |   | State: KY            | Sampling P   | oint:                    | D-049                      |  |
| Investigator(s): J. Stelly and C. Hoffmann      | Section, Tow                                | nship, Range: S      | т  | R                        |                            |  |
| Landform (hillslope, terrace, etc.):            | Local relief (co                            | ncave, convex, none) | ):   | Slope:                   | <u>0.0</u> %/ <u>0.0</u> ° |  |
| Subregion (LRR or MLRA): LRR N Lat.:            | 37.69001                                    | Long.:               | -85.95394  | C                        | Datum: WGS 1984            |  |
| Soil Map Unit Name:                             |   |                      | NWI classification   | n: N/A                   |                            |  |
|   | ear? Yes •<br>Iy disturbed?<br>problematic? | Are "Normal Circ     | lain in Remarks.)<br>umstances" presen<br>ain any answers in l |                          | ● <sub>No</sub> ○          |  |
| Summary of Findings - Attach site map showing s | ampling po                                  | oint locations, t    | ransects, imp  | ortant                   | features, etc.             |  |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | No 💿<br>No 💿<br>No 💿 | Is the Sampled Area within a Wetland? | Yes $\bigcirc$ No $\textcircled{ullet}$ |
|---|----------------------|---------------------------------------|---|
| Remarks:  |                      |                                       |   |
|   |                      |                                       |   |
|   |                      |                                       |   |
|   |                      |                                       |   |

| Wetland Hydrology Indicators:          |             |   | Secondary Indicators (minimum of two required) |
|--|-------------|---|--|
| Primary Indicators (minimum of one     | required; c | heck all that apply)                              | Surface Soil Cracks (B6)                       |
| Surface Water (A1)                     |             | True Aquatic Plants (B14)                         | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                  |             | Hydrogen Sulfide Odor (C1)                        | Drainage Patterns (B10)                        |
| Saturation (A3)                        |             | Oxidized Rhizospheres along Living Roots (C3)     | Moss Trim Lines (B16)                          |
| Water Marks (B1)                       |             | Presence of Reduced Iron (C4)                     | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                 |             | Recent Iron Reduction in Tilled Soils (C6)        | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                    |             | Thin Muck Surface (C7)                            | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                |             | Other (Explain in Remarks)                        | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)                     |             |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery ( | (B7)        |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)              |             |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                    |             |   | FAC-neutral Test (D5)                          |
| Field Observations:                    | 0           |   |  |
| Surface Water Present? Yes O           | No 🖲        | Depth (inches):                                   |  |
| Water Table Present? Yes $\bigcirc$    | No 🖲        | Depth (inches):                                   | l Hydrology Present? Yes 🔿 No 🖲                |
| Saturation Present? Yes O              | No 🖲        | Wetland<br>Depth (inches):                        | I Hydrology Present? Yes 🔾 No 🖲                |
| Describe Recorded Data (stream gauge   | ge, monitor | ing well, aerial photos, previous inspections), i | f available:                                   |
|  |             |   |  |
| Remarks:                               |             |   |  |
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|  |             |   |  |
|  |             |   |  |
| Describe Recorded Data (stream gau     |             |   | f available:                                   |

|  |          | Dominant<br>– Species? |           | Sampling Point: <b>D-049</b>   |
|--|----------|------------------------|-----------|--|
|  | Absolute | Rel.Strat.             | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                  | Status    | Number of Dominant Species   |
| 1  | 0        | 0.0%                   |           | That are OBL, FACW, or FAC: (A)  |
| 2  |          | 0.0%                   |           | Total Number of Dominant   |
| 3  |          | 0.0%                   |           | Species Across All Strata: (B)   |
| 4  |          | 0.0%                   |           | Dereent of dominant Species  |
| 5  |          | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:   |
| 6  |          | 0.0%                   |           |  |
| 7  |          | 0.0%                   |           | Prevalence Index worksheet:  |
| 8  |          | 0.0%                   |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | =        | = Total Cover          | -         | OBL species x 1 =  |
| <u></u>  | ~        | 0.0%                   |           | FACW species $0 \times 2 = 0$  |
| 2  |          | 0.0%                   |           | FAC species $0 \times 3 = 0$   |
| 3.   |          | 0.0%                   |           | FACU species x 4 =300  |
| 4.   |          | 0.0%                   |           | UPL species $0 \times 5 = 0$   |
| 5  |          | 0.0%                   |           | Column Totals:   |
| 6  |          | 0.0%                   |           | Prevalence Index = $B/A = 4.000$   |
| 7  |          | 0.0%                   |           |  |
| 8  |          | 0.0%                   |           | Hydrophytic Vegetation Indicators:   |
| 9  |          | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation  |
| 10.  |          | 0.0%                   |           | $\Box Dominance Test is > 50\%$  |
|  |          | = Total Cove           |           | Prevalence Index is ≤3.0 <sup>-1</sup>   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        | 0.0%                   |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 2  |          | 0.0%                   |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                   |           | be present, unless disturbed or problematic.   |
| 5  |          | 0.0%                   |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%                   |           | Four Vegetation Strata:  |
| 7.   | 0        | 0.0%                   |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover          | -         | (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   |
|  | 75       | 100.0%                 | FACU      | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1. Echinochioa crusgalli                                   | 0        | 0.0%                   | TACO      | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 2  | 0        | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4  | 0        | 0.0%                   |           | in height.   |
| 5<br>6.  |          | 0.0%                   |           |  |
|  |          | 0.0%                   |           | Five Vegetation Strata:  |
| 7<br>°   |          | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |
| 8  | 0        | 0.0%                   |           | diameter at breast height (DBH).   |
| 9  | 0        | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   | 0        | 0.0%                   |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 12   | 0        | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody  |
|  |          | = Total Cove           |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size: )                           |          | _                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |
| 1  | 0        | 0.0%                   |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  | 0        | 0.0%                   |           | m) in height.  |
| 3  |          | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  | 0        | 0.0%                   | ·         |  |
| 5  | 0        | 0.0%                   |           | Hydrophytic  |
| 6  | 0        | 0.0%                   |           | Vegetation   |
|  | 0        | = Total Cove           | r         | Present? Yes V No 🛡  |
| Remarks: (Include photo numbers here or on a separate shee | + )      |                        |           |  |

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| Profile Desci  |                          | the depth                                  |  |             |                   | nfirm the a   | absence of indicators.)          |                                    |
|--|--------------------------|--|--|-------------|-------------------|---|----------------------------------|------------------------------------|
| Depth  | Matrix                   | Redox Features                             |  |             |                   |   |                                  |                                    |
| (inches)   | Color (moist)            | %  | Color (moist)                              | %           | Tvpe <sup>1</sup> | Loc <sup>2</sup>  | Texture                          | Remarks                            |
| 0-21   | 10YR 3/1                 | 100  |  |             |                   |   |                                  |                                    |
|  |                          |  |  | _           |                   |   |                                  |                                    |
|  |                          |  |  |             |                   |   |                                  |                                    |
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|  |                          |  |  |             |                   |   |                                  |                                    |
| <sup>1</sup> Type: C=Cor   | ncentration. D=Depletion | on. RM=Rec                                 | luced Matrix, CS=Covere                    | ed or Coate | ed Sand Gra       | ins <sup>2</sup> Loca   | tion: PL=Pore Lining. M=M        | atrix                              |
| Hydric Soil  |                          |  |  |             |                   |   | Indicators for Proble            | ematic Hydric Soils <sup>3</sup> : |
| Histosol (A1)  |                          |  |  |             |                   | 2 cm Muck (A10) (MLRA 147)  |                                  |                                    |
|  | pedon (A2)               |  | olyvalue Below Surface (S8) (MLRA 147,148) |             |                   | Coast Prairie Redox (A16)   |                                  |                                    |
| Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)                                     |                          |  |  |             |                   | (MLRA 147,148)  |                                  |                                    |
| Hydrogen Sulfide (A4)  |                          |  |  |             |                   | Piedmont Floodplain Soils (F19)<br>(MLRA 136, 147)  |                                  |                                    |
| Stratified Layers (A5)   |                          |  |  |             |                   |   |                                  |                                    |
| 2 cm Muc   | ck (A10) (LRR N)         |  | Redox Dark Surface (F6)                    |             |                   |   | Very Shallow Dark Surface (TF12) |                                    |
| Depleted   | Below Dark Surface (A    | Depleted Dark Surface (F7)                 |  |             |                   | Other (Explain in Remarks)  |                                  |                                    |
| Thick Dark Surface (A12)   |                          |  |  |             |                   |   |                                  |                                    |
| Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) |                          |  |  |             |                   |   |                                  |                                    |
| Sandy Gleyed Matrix (S4)   |                          |  |  |             |                   | 3   |                                  |                                    |
| Sandy Re   | edox (S5)                | Piedmont Floodplain Soils (F19) (MLRA 148) |  |             |                   | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,<br>unless disturbed or problematic. |                                  |                                    |
| Stripped   | Matrix (S6)              | Red Parent Material (F21) (MLRA 127, 147)  |  |             |                   |   |                                  |                                    |
| Restrictive L  | ayer (if observed):      |  |  |             |                   |   |                                  |                                    |
| Type:  |                          |  |  |             |                   |   |                                  |                                    |
| Depth (inc   | ches):                   |  |  |             |                   | Hydric Soil Present? Yes $\bigcirc$ No $oldsymbol{igodol}$  |                                  |                                    |
| Remarks:   |                          |  |  |             |                   |   |                                  |                                    |
| Remarks.   |                          |  |  |             |                   |   |                                  |                                    |
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| 1  |                          |  |  |             |                   |   |                                  |                                    |

| Project/Site: Telesto Solar Project                                     | City/County:     | Cecilia/Hardin       | Sampling Date: 23-   |            | Mar-22 |  |
|---|------------------|----------------------|----------------------|------------|--------|--|
| Applicant/Owner: 7x Energy  |                  | State: KY            | Sampling Po          | oint: DI   | P-050  |  |
| Investigator(s): S. Waltman and C. Martin                               | Section, Tow     | nship, Range: S      | т                    | R          |        |  |
| Landform (hillslope, terrace, etc.):                                    | Local relief (co | ncave, convex, none) | concave              | Slope: 0.0 | %/°    |  |
| Subregion (LRR or MLRA):  | .: 37.689135     | Long.:               | -85.969293           | Datum      | :      |  |
| Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rarely fl | looded)          |                      | NWI classification   | n: PEM     |        |  |
| Are climatic/hydrologic conditions on the site typical for this time of | year? Yes 🖲      | No 🔘 (If no, exp     | lain in Remarks.)    | 0          | ~      |  |
| Are Vegetation, Soil, or Hydrology signification                        | ntly disturbed?  | Are "Normal Circ     | umstances" presen    | t? Yes 🖲   | No 🔾   |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally                    | y problematic?   | (If needed, expla    | ain any answers in F | Remarks.)  |        |  |
|   |                  |                      |                      |            |        |  |

## Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes No (<br>Yes No (<br>Yes No ( | Is the | Sampled Area<br>a Wetland? | Yes $\odot$ No $\bigcirc$ |
|---|----------------------------------|--------|----------------------------|---------------------------|
| Remarks:  |                                  |        |                            |                           |

| Wetland Hydrology Indicators:                                 |   | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one required; chee             | ck all that apply)                                    | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  | True Aquatic Plants (B14)                             | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)   | Hydrogen Sulfide Odor (C1)                            | Drainage Patterns (B10)                        |
| Saturation (A3)   | Oxidized Rhizospheres along Living Roots (C3)         | Moss Trim Lines (B16)                          |
| Water Marks (B1)  | Presence of Reduced Iron (C4)                         | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)  | Recent Iron Reduction in Tilled Soils (C6)            | Crayfish Burrows (C8)                          |
| Drift deposits (B3)   | Thin Muck Surface (C7)                                | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                       | Other (Explain in Remarks)                            | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)                     |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                     |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)   |   | FAC-neutral Test (D5)                          |
| Field Observations:   |   |  |
| Surface Water Present? Yes $oldsymbol{igstar}$ No $igstar$    | Depth (inches):1                                      |  |
| Water Table Present? Yes O No O                               | Depth (inches):                                       | rology Present? Yes 🖲 No 🔾                     |
| Saturation Present?<br>(includes capillary fringe) Yes O No O | Depth (inches):                                       | rology Present? Yes 🔍 No 🔾                     |
| Describe Recorded Data (stream gauge, monitoring              | g well, aerial photos, previous inspections), if avai | lable:   |
|   |   |  |
| Remarks:  |   |  |
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|   |          | Dominant<br>– Species? |           | Sampling Point: DP-050   |
|---|----------|------------------------|-----------|--|
|   | Absolute | Rel.Strat.             | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                 | % Cover  | Cover                  | Status    | Number of Dominant Species   |
| 1   | 0        | 0.0%                   |           | That are OBL, FACW, or FAC: (A)  |
| 2   |          | 0.0%                   |           | Total Number of Dominant   |
| 3   | 0        | 0.0%                   |           | Species Across All Strata: <u>3</u> (B)  |
| 4   | -        | 0.0%                   |           |  |
| 5   |          | 0.0%                   |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)  |
| 6   |          | 0.0%                   |           |  |
| 7   |          | 0.0%                   |           | Prevalence Index worksheet:  |
| 8   |          | 0.0%                   |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:                 | ) =      | = Total Cover          | -         | OBL species x 1 =  |
| 1   |          | 0.0%                   |           | FACW species x 2 =   |
| 2   |          | 0.0%                   |           | FAC species x 3 =30  |
| 3   |          | 0.0%                   |           | FACU species x 4 =   |
| 4   |          | 0.0%                   |           | UPL species x 5 =50  |
| 5   |          | 0.0%                   |           | Column Totals: <u>120</u> (A) <u>380</u> (B)   |
| 6   |          | 0.0%                   |           | Prevalence Index = $B/A = 3.167$   |
| 7   |          | 0.0%                   |           |  |
| 8   |          | 0.0%                   |           | Hydrophytic Vegetation Indicators:   |
| 9   |          | 0.0%                   |           | Rapid Test for Hydrophytic Vegetation  |
| 10  |          | 0.0%                   |           | ✓ Dominance Test is > 50%  |
|   |          | = Total Cove           |           | Prevalence Index is $\leq 3.0^{1}$   |
| Shrub Stratum (Plot size:)                                |          | _                      |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 1. Rosa bracteata   |          | ✓ 100.0%               | UPL       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2   |          | 0.0%                   |           |  |
| 3   |          | 0.0%                   |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.              |
| 4   |          | 0.0%                   |           |  |
| 5   |          | 0.0%                   |           | Definition of Vegetation Strata:   |
| 6   |          | 0.0%                   |           | Four Vegetation Strata:<br>Tree stratum – Consists of woody plants, excluding vines, 3 in.                                     |
| 7   | 0        | 0.0%                   |           | (7.6 cm) or more in diameter at breast height (DBH), regardless  |
| Herb Stratum (Plot size:)                                 | 10 =     | = Total Cover          | -         | of height.   |
| 1. <u>Setaria pumila</u>                                  | 100      | 100.0%                 | FAC       | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. |
| 2   | 0        | 0.0%                   |           | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3   | 0        | 0.0%                   |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4   | 0        | 0.0%                   |           | Woody vines – Consists of all woody vines greater than 3.28 ft<br>in height.   |
| 5   | 0        | 0.0%                   |           | in neight.   |
| 6   | 0        | 0.0%                   |           | Five Vegetation Strata:  |
| 7   | 0        | 0.0%                   |           | Tree - Woody plants, excluding woody vines, approximately 20   |
| 8   | 0        | 0.0%                   |           | ft (6 m) or more in height and 3 in. (7.6 cm) or larger in   |
| 9   | 0        | 0.0%                   |           | diameter at breast height (DBH).   |
| 10  | 0        | 0.0%                   |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |
| 11  | 0        | 0.0%                   |           | than 3 in. (7.6 cm) DBH.   |
| 12  | 0        | 0.0%                   |           | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.             |
| Woody Vine Stratum (Plot size:)                           | 100 =    | = Total Cover          | -         | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 1. Campsis radicans                                       | 10       | ✓ 100.0%               | FAC       | including herbaceous vines, regardless of size, and woody  |
| ••  |          | 0.0%                   |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 2   |          | 0.0%                   |           | Woody vines – Consists of all woody vines, regardless of   |
| 3   | -        | 0.0%                   |           | height.  |
| 4   |          | 0.0%                   |           |  |
| 5   | 0        | 0.0%                   |           | Hydrophytic  |
| 6   |          | = Total Cove           |           | Vegetation<br>Present? Yes O No O  |
| Remarks: (Include photo numbers here or on a separate she |          |                        | •         |  |

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\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

| Profile Descr        | iption: (Describe to               | the depth r | needed to document         | the indi    | cator or co  | nfirm the a           | absence of indicators.)    |  |
|----------------------|------------------------------------|-------------|----------------------------|-------------|--------------|-----------------------|----------------------------|--|
| Depth                | Matrix                             |             |                            | dox Featu   | 1            |                       |                            |  |
| (inches)             | Color (moist)                      | %           | Color (moist)              | _%          | Tvpe         | Loc <sup>2</sup>      | Texture                    | Remarks  |
| 0-20                 | 10YR 5/2                           | 95          | 10YR 4/6                   | 5           | RM           | PL                    | Silty Clay                 |  |
|                      |                                    |             |                            |             |              |                       |                            |  |
| E-                   | -                                  |             |                            |             |              |                       | ,                          |  |
|                      |                                    |             |                            |             |              |                       |                            |  |
|                      |                                    |             |                            | -           |              |                       | ,                          |  |
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|                      |                                    |             |                            |             |              |                       |                            |  |
|                      |                                    |             |                            |             |              |                       |                            |  |
|                      |                                    | on. RM=Redu | ced Matrix, CS=Covere      | ed or Coat  | ed Sand Gra  | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M  | atrix  |
| Hydric Soil I        |                                    |             | _                          |             |              |                       | Indicators for Proble      | ematic Hydric Soils <sup>3</sup> :                     |
|                      | A1)                                |             | Dark Surface (S            | 57)         |              |                       | 2 cm Muck (A10)            | (MLRA 147)   |
|                      | pedon (A2)                         |             | Polyvalue Belov            |             |              |                       | Coast Prairie Redo         |  |
| Black Hist           | ic (A3)                            |             | Thin Dark Surfa            | ace (S9) (N | MLRA 147, 1  | 48)                   | (MLRA 147,148)             | X (ATO)  |
| Hydrogen             | Sulfide (A4)                       |             | Loamy Gleyed               | Matrix (F2  | )            |                       | Piedmont Floodpl           | ain Soils (F19)  |
| Stratified           | Layers (A5)                        |             | Depleted Matrix            | (F3)        |              |                       | (MLRA 136, 147)            |  |
| 2 cm Muc             | k (A10) (LRR N)                    |             | Redox Dark Su              | rface (F6)  |              |                       | Very Shallow Dark          | k Surface (TF12)                                       |
| Depleted             | Below Dark Surface (A              | .11)        | Depleted Dark              | Surface (F  | 7)           |                       | Other (Explain in          | Remarks)   |
| Thick Dar            | k Surface (A12)                    |             | Redox Depress              | ions (F8)   |              |                       |                            |  |
| Sandy Mu<br>MLRA 147 | ick Mineral (S1) (LRR N<br>7, 148) | ١,          | Iron-Manganes<br>MLRA 136) | e Masses    | (F12) (LRR I | Ν,                    |                            |  |
|                      | eyed Matrix (S4)                   |             | Umbric Surface             | (F13) (M    | LRA 136, 12  | 2)                    |                            |  |
| Sandy Re             |                                    |             | Piedmont Flood             | plain Soil  | s (F19) (MLF | RA 148)               | <sup>3</sup> Indicators of | hydrophytic vegetation and<br>Irology must be present, |
|                      | Matrix (S6)                        |             | Red Parent Ma              | terial (F21 | ) (MLRA 12   | 7, 147)               |                            | sturbed or problematic.                                |
|                      |                                    |             |                            |             |              |                       |                            |  |
|                      | ayer (if observed):                |             |                            |             |              |                       |                            |  |
| Туре:                |                                    |             |                            |             |              |                       | Hydric Soil Present?       | Yes $ullet$ No $ightarrow$                             |
| Depth (inc           | hes):                              |             |                            |             |              |                       |                            |  |
| Remarks:             |                                    |             |                            |             |              |                       |                            |  |
|                      |                                    |             |                            |             |              |                       |                            |  |
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|                      |                                    |             |                            |             |              |                       |                            |  |
|                      |                                    |             |                            |             |              |                       |                            |  |

| Project/Site: Telesto Solar Project  | City/County:     | Cecilia/Hardin      | Sampling Date: 23-Mar-22                   |                                 |      |  |
|--|------------------|---------------------|--|---------------------------------|------|--|
| Applicant/Owner: 7x Energy   |                  | State: KY           | Sampling Poi                               | int: DP-051                     |      |  |
| Investigator(s): S. Waltman and C. Martin  | Section, Tow     | nship, Range: S     | т  | R                               |      |  |
| Landform (hillslope, terrace, etc.):   | Local relief (co | ncave, convex, none | ):   | Slope: <u>0.0</u> % / <u>0.</u> | .0 ° |  |
| Subregion (LRR or MLRA):   | 37.689097        | Long.:              | -85.969322                                 | Datum:                          |      |  |
| Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rarely floo  | oded)            |                     | NWI classification:                        | N/A                             |      |  |
| Are climatic/hydrologic conditions on the site typical for this time of ye<br>Are Vegetation, Soil, or Hydrology significant | ear? Yes •       |                     | blain in Remarks.)<br>cumstances" present? | ? Yes 🔍 No 🔾                    |      |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p   | problematic?     | (If needed, expl    | ain any answers in Re                      | emarks.)                        |      |  |
|  |                  |                     |  |                                 |      |  |

## Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present? | $_{\sf Yes}$ $\bigcirc$ | No 🖲 |                     |                                       |  |
|---------------------------------|-------------------------|------|---------------------|---------------------------------------|--|
| Hydric Soil Present?            | Yes $\bigcirc$          | No 🖲 | Is the Sampled Area | Yes $\bigcirc$ No $oldsymbol{igodol}$ |  |
| Wetland Hydrology Present?      | $_{ m Yes} \bigcirc$    | No 🖲 | within a Wetland?   |                                       |  |
| Remarks:                        |                         |      |                     |                                       |  |
|                                 |                         |      |                     |                                       |  |
|                                 |                         |      |                     |                                       |  |
|                                 |                         |      |                     |                                       |  |

| Wetland Hydrology Indicate                                | ors:                   |         |   | Secondary Indicators (minimum of two required) |
|---|------------------------|---------|---|--|
| Primary Indicators (minimu                                | um of one              | require | ed; check all that apply)               | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                        |         | True Aquatic Plants (B14)               | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                        |         | Hydrogen Sulfide Odor (C1)              | Drainage Patterns (B10)                        |
| Saturation (A3)   |                        |         | Oxidized Rhizospheres along Living Ro   | bots (C3) Moss Trim Lines (B16)                |
| Water Marks (B1)  |                        |         | Presence of Reduced Iron (C4)           | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                        |         | Recent Iron Reduction in Tilled Soils ( | C6) Crayfish Burrows (C8)                      |
| Drift deposits (B3)                                       |                        |         | Thin Muck Surface (C7)                  | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                        |         | Other (Explain in Remarks)              | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                        |         |   | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | al Imagery (           | B7)     |   | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                 | )                      |         |   | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                        |         |   | FAC-neutral Test (D5)                          |
| Field Observations:                                       |                        |         |   |  |
| Surface Water Present?                                    | Yes $\bigcirc$         | No 🤆    | Depth (inches):                         |  |
| Water Table Present?                                      | $_{ m Yes}$ $\bigcirc$ | No 🤆    | Depth (inches):                         |  |
|   |                        |         | Deptil (inches).                        |  |
| Saturation Present?<br>(includes capillary fringe)        | Yes O                  | No (    |   | Wetland Hydrology Present? Yes 🔿 No 🖲          |
| (includes capillary fringe)                               | $_{\rm Yes} \bigcirc$  | No 🤆    |   |  |
| (includes capillary fringe)                               | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)                               | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st | $_{\rm Yes} \bigcirc$  | No 🤆    | Depth (inches):                         |  |

| · · ·  |          | Dominant<br>—Species? |           | Sampling Point: DP-051   |
|--|----------|-----------------------|-----------|--|
|  | Absolute | Rel.Strat.            | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                 | Status    | Number of Dominant Species   |
| 1  | 0        | 0.0%                  |           | That are OBL, FACW, or FAC: (A)  |
| 2  | 0        | 0.0%                  |           | Total Number of Dominant   |
| 3  | 0        | 0.0%                  |           | Species Across All Strata: <u>1</u> (B)  |
| 4  | 0        | 0.0%                  |           |  |
| 5  | 0        | 0.0%                  |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:   |
| 6  | 0        | 0.0%                  |           |  |
| 7  | 0        | 0.0%                  |           | Prevalence Index worksheet:  |
| 8  | 0        | 0.0%                  |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 | :        | = Total Cover         | -         | OBL species x 1 =  |
|  |          | 0.0%                  |           | FACW species $0 \times 2 = 0$  |
| 1  |          | 0.0%                  |           | FAC species x 3 =  |
| 2  |          | 0.0%                  | ·         | FACU species x 4 =400  |
| 3  |          | 0.0%                  |           | UPL species x 5 =  |
| 4  |          | 0.0%                  |           | Column Totals: 100 (A) 400 (B)   |
| 5  |          |                       |           |  |
| 6  | -        | 0.0%                  |           | Prevalence Index = $B/A = 4.000$   |
| 7  |          | 0.0%                  |           | Hydrophytic Vegetation Indicators:   |
| 8  |          | 0.0%                  |           | Rapid Test for Hydrophytic Vegetation  |
| 9  |          | 0.0%                  |           | Dominance Test is > 50%  |
| 10   |          | 0.0%                  |           | Prevalence Index is $\leq$ 3.0 $^{1}$  |
| Shrub Stratum (Plot size:)                                 | :        | = Total Cover         | •         | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1  | 0        | 0.0%                  |           | data in Remarks or on a separate sheet)  |
| 2  | 0        | 0.0%                  |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |          | 0.0%                  |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |          | 0.0%                  |           | be present, unless disturbed or problematic.   |
| 5  | 0        | 0.0%                  |           | Definition of Vegetation Strata:   |
| 6  |          | 0.0%                  |           | Four Vegetation Strata:  |
| 7  | 0        | 0.0%                  |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum (Plot size:)                                  | 0 :      | = Total Cover         |           | of height.   |
|  | 100      | ✓ 100.0%              | FACU      | Sapling/shrub stratum – Consists of woody plants, excluding  |
|  | 0        | 0.0%                  |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.<br>Herb stratum – Consists of all herbaceous (non-woody) plants,   |
| 2  | 0        | 0.0%                  |           | regardless of size, and all other plants less than 3.28 ft tall.   |
| 3  | 0        | 0.0%                  |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 4<br>5   | 0        | 0.0%                  |           | in height.   |
| 6  |          | 0.0%                  |           |  |
| 7  |          | 0.0%                  |           | Five Vegetation Strata:  |
| 8  |          | 0.0%                  |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |
|  | 0        | 0.0%                  |           | diameter at breast height (DBH).   |
| 9  | 0        | 0.0%                  |           | Sapling stratum – Consists of woody plants, excluding woody  |
| 10   | 0        | 0.0%                  |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   |
| 11   | 0        | 0.0%                  |           | Shrub stratum – Consists of woody plants, excluding woody  |
| 12   |          | = Total Cover         |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size:)                            |          | _                     |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody         |
| 1  | 0        | 0.0%                  |           | species, except woody vines, less than approximately 3 ft (1   |
| 2  | 0        | 0.0%                  |           | m) in height.  |
| 3  | 0        | 0.0%                  |           | Woody vines – Consists of all woody vines, regardless of   |
| 4  | 0        | 0.0%                  |           | height.  |
| 5  | 0        | 0.0%                  |           | Hydrophytic  |
| 6  | 0        | 0.0%                  |           | Vegetation   |
|  | 0        | = Total Cove          | r         | Present? Yes Vo Vo   |
| Remarks: (Include photo numbers here or on a separate shee | et.)     |                       |           |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

| Profile Descr        | iption: (Describe to              | the depth n   | eded to documen            | t the indic   | ator or co        | nfirm the a            | absence of indicators.)                      |   |
|----------------------|-----------------------------------|---------------|----------------------------|---------------|-------------------|------------------------|--|---|
| Depth                | Matrix                            |               |                            | dox Featu     |                   |                        |  |   |
| (inches)             | Color (moist)                     |               | Color (moist)              | %             | Tvpe <sup>1</sup> | Loc <sup>2</sup>       | Texture                                      | Remarks   |
| 0-20                 | 10YR 4/4                          | 100           |                            |               |                   |                        | Silty Clay                                   |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
| -                    |                                   |               |                            | _             |                   |                        |  |   |
|                      |                                   | ,             |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        | . <u> </u>                                   |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
| 1 Turney C. Corre    | contration D Doplatio             | n DM Dadua    | ad Matrix CS Cause         | ad ar Caata   | d Cond Cro        | ing 21.000             | tion, DL Doro Lining M Ma                    | +=1.7   |
|                      | -                                 | n. Kivi=Reauc | eu watrix, CS=Cover        | eu or coate   | su sand Gra       | IIIS <sup>2</sup> LOCA | tion: PL=Pore Lining. M=Ma                   |   |
| Hydric Soil I        |                                   |               | Dark Surface (             | (67)          |                   |                        | Indicators for Proble                        | matic Hydric Soils <sup>3</sup> :                     |
| Histosol (/          |                                   |               | _                          | . ,           |                   | 147 140                | 2 cm Muck (A10)                              | (MLRA 147)  |
|                      | bedon (A2)                        |               | Polyvalue Belo             |               |                   |                        | Coast Prairie Redo                           | x (A16)   |
| Black Hist           |                                   |               | Thin Dark Surf             |               |                   | 48)                    | (MLRA 147,148)                               |   |
|                      | Sulfide (A4)                      |               | Loamy Gleyed               |               |                   |                        | Piedmont Floodpla                            | in Soils (F19)  |
|                      | Layers (A5)                       |               | Depleted Matri             | • •           |                   |                        | (MLRA 136, 147)                              |   |
|                      | k (A10) (LRR N)                   |               | Redox Dark Su              |               | ->                |                        | Very Shallow Dark                            | Surface (TF12)  |
| ·                    | Below Dark Surface (A             | 11)           | Depleted Dark              |               | /)                |                        | Other (Explain in F                          | Remarks)  |
|                      | k Surface (A12)                   |               | Redox Depress              |               | 540) (I DD 1      |                        |  |   |
| Sandy Mu<br>MLRA 147 | ck Mineral (S1) (LRR N<br>7, 148) | 1,            | Iron-Manganes<br>MLRA 136) | se Masses (   | F12) (LRR I       | Ν,                     |  |   |
| Sandy Gle            | yed Matrix (S4)                   |               | Umbric Surfac              | e (F13) (ML   | RA 136, 12        | 2)                     | 2  |   |
| Sandy Red            | dox (S5)                          |               | Piedmont Floo              | dplain Soils  | (F19) (MLF        | RA 148)                | <sup>o</sup> Indicators of h<br>wetland hydr | nydrophytic vegetation and<br>rology must be present, |
| Stripped N           | Aatrix (S6)                       |               | Red Parent Ma              | nterial (F21) | (MLRA 127         | 7, 147)                |  | turbed or problematic.                                |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      | ayer (if observed):               |               |                            |               |                   |                        |  |   |
| Type:                |                                   |               |                            |               |                   |                        | Hydric Soil Present?                         | Yes 🔿 No 🖲  |
|                      | nes):                             |               |                            |               |                   |                        |  |   |
| Remarks:             |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |
|                      |                                   |               |                            |               |                   |                        |  |   |

| Project/Site: Telesto Solar Project   | City/County:     | Cecilia/Hardin      | Sampli                                     | ing Date: 23-Ma | 23-Mar-22 |  |
|---|------------------|---------------------|--|-----------------|-----------|--|
| Applicant/Owner: 7x Energy  |                  | State: KY           | Sampling Poi                               | int: DP         | -052      |  |
| Investigator(s): S. Waltman and C. Martin   | Section, Tow     | nship, Range: S     | т  | R               |           |  |
| Landform (hillslope, terrace, etc.):  | Local relief (co | ncave, convex, none | ):   | Slope:0.0       | %/°       |  |
| Subregion (LRR or MLRA):  | 37.687692        | Long.:              | -85.970916                                 | Datum:          |           |  |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes)  |                  |                     | NWI classification:                        | N/A             |           |  |
| Are climatic/hydrologic conditions on the site typical for this time of your Are Vegetation, Soil, or Hydrology significant | ear? Yes 🖲       |                     | blain in Remarks.)<br>cumstances" present? | Yes 🖲           | No 〇      |  |
| Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p  | problematic?     | (If needed, expl    | ain any answers in Re                      | emarks.)        |           |  |
|   |                  |                     |  |                 |           |  |

## Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes No<br>Yes No<br>Yes No<br>No | Is the Sampled Area Yes $\bigcirc$ No $\bigcirc$ within a Wetland? |
|---|----------------------------------|--|
| Remarks:  |                                  |  |
|   |                                  |  |
|   |                                  |  |

| Wetland Hydrology Indicat  | ors:                    |        |          |                        |                         | Secondary Indicators (minimum of two required)         |
|--|-------------------------|--------|----------|------------------------|-------------------------|--|
| Primary Indicators (minim  | um of one               | requir | ed; chec | k all that apply)      |                         | Surface Soil Cracks (B6)                               |
| Surface Water (A1)   |                         |        |          | True Aquatic Plants (B | 14)                     | Sparsely Vegetated Concave Surface (B8)                |
| High Water Table (A2)  |                         |        |          | Hydrogen Sulfide Odor  | - (C1)                  | Drainage Patterns (B10)                                |
| Saturation (A3)  |                         |        |          | Oxidized Rhizospheres  | along Living Roots (C3) | Moss Trim Lines (B16)                                  |
| Water Marks (B1)   |                         |        |          | Presence of Reduced I  | ron (C4)                | Dry Season Water Table (C2)                            |
| Sediment Deposits (B2)   |                         |        |          | Recent Iron Reduction  | in Tilled Soils (C6)    | Crayfish Burrows (C8)                                  |
| Drift deposits (B3)  |                         |        |          | Thin Muck Surface (C7  | )                       | Saturation Visible on Aerial Imagery (C9)              |
| Algal Mat or Crust (B4)  |                         |        |          | Other (Explain in Rema | arks)                   | Stunted or Stressed Plants (D1)                        |
| Iron Deposits (B5)   |                         |        |          |                        |                         | Geomorphic Position (D2)                               |
| Inundation Visible on Aeri   | al Imagery (            | B7)    |          |                        |                         | Shallow Aquitard (D3)                                  |
| Water-Stained Leaves (B9   | )                       |        |          |                        |                         | Microtopographic Relief (D4)                           |
| Aquatic Fauna (B13)  |                         |        |          |                        |                         | FAC-neutral Test (D5)                                  |
| Field Observations:  |                         |        | ~        |                        |                         |  |
| Surface Water Present?   | Yes $\bigcirc$          | No (   |          | Depth (inches):        |                         |  |
| Water Table Present?   | Yes $\bigcirc$          | No (   | •        | Depth (inches):        |                         |  |
|  |                         |        |          |                        |                         | · · · · · · · · · · · · · · · · · · ·                  |
| Saturation Present?<br>(includes capillary fringe)                               | $_{\rm Yes}$ $\bigcirc$ | No (   |          | Depth (inches):        | Wetland Hy              | drology Present? Yes $\bigcirc$ No $oldsymbol{igodol}$ |
| Saturation Present?<br>(includes capillary fringe)<br>Describe Recorded Data (si |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)  |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)  |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (st                        |                         | No (   | •        | Depth (inches):        |                         |  |
| (includes capillary fringe)<br>Describe Recorded Data (si                        |                         | No (   | •        | Depth (inches):        |                         |  |

|  |          | Dominant                  |           | Sampling Point: DP-052  |
|--|----------|---------------------------|-----------|---|
|  | Absolute | -Species? -<br>Rel.Strat. | Indicator | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)                                  | % Cover  | Cover                     | Status    | Number of Dominant Species  |
| 1  | 0        | 0.0%                      |           | That are OBL, FACW, or FAC: (A)   |
| 2  |          | 0.0%                      |           | Total Number of Dominant  |
| 3  | 0        | 0.0%                      |           | Species Across All Strata: (B)  |
| 4  | -        | 0.0%                      |           |   |
| 5  |          | 0.0%                      |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC:  |
| 6  |          | 0.0%                      |           |   |
| 7  |          | 0.0%                      |           | Prevalence Index worksheet:   |
| 8  |          | 0.0%                      |           | Total % Cover of: Multiply by:  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |          | = Total Cover             |           | OBL species $0 \times 1 = 0$  |
| 1  | ~        | 0.0%                      |           | FACW species $0 \times 2 = 0$   |
| 2  |          | 0.0%                      |           | FAC species x 3 =   |
| 3  |          | 0.0%                      |           | FACU species x 4 =  |
| 4  |          | 0.0%                      |           | UPL species $100 \times 5 = 500$  |
| 5  |          | 0.0%                      |           | Column Totals:(A)(B)  |
| 6  |          | 0.0%                      |           | Prevalence Index = $B/A = 5.000$  |
| 7  | -        | 0.0%                      |           |   |
| 8  |          | 0.0%                      |           | Hydrophytic Vegetation Indicators:  |
| 9  |          | 0.0%                      |           | Rapid Test for Hydrophytic Vegetation   |
| 10.  |          | 0.0%                      |           | Dominance Test is > 50%   |
|  |          | = Total Cove              |           | $\square Prevalence Index is \leq 3.0^{-1}$   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0        |                           |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                                |
| 2  |          | 0.0%                      |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 3  |          | 0.0%                      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 4  |          | 0.0%                      |           | be present, unless disturbed or problematic.  |
| 5  |          | 0.0%                      |           | Definition of Vegetation Strata:  |
| 6  |          | 0.0%                      |           | Four Vegetation Strata:   |
| 7.   | 0        | 0.0%                      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.   |
| Herb Stratum (Plot size:)                                  | 0 =      | = Total Cover             |           | (7.6 cm) or more in diameter at breast height (DBH), regardless<br>of height.   |
|  |          | ✓ 100.0%                  | וחוו      | Sapling/shrub stratum – Consists of woody plants, excluding   |
| 1. <u>Glycine max</u>                                      |          |                           | UPL       | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   |
| 2  | 0        | 0.0%                      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>regardless of size, and all other plants less than 3.28 ft tall. |
| 3  | 00       | 0.0%                      |           | Woody vines – Consists of all woody vines greater than 3.28 ft  |
| 4  | 0        | 0.0%                      |           | in height.  |
| 5  |          | 0.0%                      |           |   |
| 6  |          | 0.0%                      |           | Five Vegetation Strata:   |
| 7<br>°   |          | 0.0%                      |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in           |
| 8  | 0        | 0.0%                      |           | diameter at breast height (DBH).  |
| 9  | 0        | 0.0%                      |           | Sapling stratum – Consists of woody plants, excluding woody   |
| 10   | 0        | 0.0%                      |           | vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| 12   | 0        | 0.0%                      |           | Shrub stratum – Consists of woody plants, excluding woody   |
|  |          | = Total Cove              |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| Woody Vine Stratum (Plot size: )                           |          | _                         |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody        |
| 1  | 0        | 0.0%                      |           | species, except woody vines, less than approximately 3 ft (1  |
| 2  | 0        | 0.0%                      |           | m) in height.   |
| 3  |          | 0.0%                      |           | Woody vines – Consists of all woody vines, regardless of<br>height.   |
| 4  | 0        | 0.0%                      |           |   |
| 5  | 0        | 0.0%                      |           | Hydrophytic   |
| 6  | 0        | 0.0%                      |           | Vegetation  |
|  | 0        | = Total Cove              | r         | Present? Yes V No 🖲   |
| Pemarks: (Include nhoto numbers here or on a senarate shee |          |                           |           |   |

Remarks: (Include photo numbers here or on a separate sheet.)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

| Profile Descr            |                         | the depth  |                        |              |                   | nfirm the a           | absence of indicators.)                               |   |  |  |
|--------------------------|-------------------------|------------|------------------------|--------------|-------------------|-----------------------|---|---|--|--|
| Depth                    | Matrix                  |            |                        | dox Featu    |                   |                       |   |   |  |  |
| (inches)                 | Color (moist)           | %          | Color (moist)          | %            | Tvpe <sup>1</sup> | Loc <sup>2</sup>      |   | Remarks                                 |  |  |
| 0-20                     | 10YR 4/4                | 100        |                        |              |                   |                       | Silty Clay  |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            | ·                      |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        | ·            |                   |                       | ,   |   |  |  |
|                          |                         |            |                        |              |                   |                       | ,,  |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
| <sup>1</sup> Type: C=Con | centration. D=Depletic  | on. RM=Red | uced Matrix, CS=Covere | ed or Coate  | ed Sand Gra       | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=M                             | atrix                                   |  |  |
| Hydric Soil              | Indicators:             |            |                        |              |                   |                       | Indicators for Proble                                 | ematic Hydric Soils <sup>3</sup> :      |  |  |
| Histosol (               | (A1)                    |            | Dark Surface (S        | 57)          |                   |                       | 2 cm Muck (A10)                                       | -                                       |  |  |
| Histic Epi               | pedon (A2)              |            | Polyvalue Belov        | v Surface (  | (S8) (MLRA        | 147,148)              |   |   |  |  |
| Black His                | tic (A3)                |            | Thin Dark Surfa        | nce (S9) (N  | 1LRA 147, 1       | 48)                   | Coast Prairie Redo<br>(MLRA 147,148)                  | ox (A16)                                |  |  |
| Hydroger                 | n Sulfide (A4)          |            | Loamy Gleyed I         | Matrix (F2)  |                   |                       | Piedmont Floodpl                                      | ain Sails (E10)                         |  |  |
| Stratified               | Layers (A5)             |            | Depleted Matrix        | (F3)         |                   |                       | (MLRA 136, 147)                                       |   |  |  |
| 2 cm Muc                 | :k (A10) (LRR N)        |            | Redox Dark Sur         | rface (F6)   |                   |                       | Very Shallow Darl                                     | k Surface (TF12)                        |  |  |
| Depleted                 | Below Dark Surface (A   | .11)       | Depleted Dark          | Surface (F   | 7)                |                       | Other (Explain in Remarks)                            |   |  |  |
|                          | k Surface (A12)         |            | Redox Depress          | ions (F8)    |                   |                       |   | (c) (c) (c) (c) (c) (c) (c) (c) (c) (c) |  |  |
| Sandy Mu                 | uck Mineral (S1) (LRR I | ۸,         | Iron-Manganes          | e Masses (   | (F12) (LRR M      | Ν,                    |   |   |  |  |
| MLRA 14                  | 7, 148)                 |            | MLRA 136)              |              |                   |                       |   |   |  |  |
| Sandy Gle                | eyed Matrix (S4)        |            | Umbric Surface         |              |                   |                       | <sup>3</sup> Indicators of hydrophytic vegetation and |   |  |  |
| Sandy Re                 | dox (S5)                |            | Piedmont Floor         | iplain Soils | (F19) (MLF        | RA 148)               | wetland hyd   | Irology must be present,                |  |  |
| Stripped                 | Matrix (S6)             |            | Red Parent Mat         | terial (F21) | (MLRA 127         | 7, 147)               |   | sturbed or problematic.                 |  |  |
| Restrictive I            | ayer (if observed):     |            |                        |              |                   |                       |   |   |  |  |
| Type:                    |                         |            |                        |              |                   |                       |   |   |  |  |
| Depth (inc               | hes).                   |            |                        |              |                   |                       | Hydric Soil Present?                                  | Yes 🔾 No 🖲                              |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
| Remarks:                 |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |
|                          |                         |            |                        |              |                   |                       |   |   |  |  |

| Project/Site: Telesto Solar Project                          | City/County:                                 | Cecilia/Hardin      | Sam  | pling Date: 23-M | ar-22      |
|--|--|---------------------|--|------------------|------------|
| Applicant/Owner: 7x Energy                                   |  | State: KY           | Sampling F   | Point: DF        | 9-053      |
| Investigator(s): S. Waltman and C. Martin                    | Section, Tow                                 | nship, Range: S     | т  | R                |            |
| Landform (hillslope, terrace, etc.):                         | Local relief (co                             | ncave, convex, none | ):   | Slope: 0.0       | %/0.0 °    |
| Subregion (LRR or MLRA):                                     | .: 37.687684                                 | Long.:              | -85.970941   | Datum:           |            |
| Soil Map Unit Name: Gatton silt loam (2 to 6 percent slopes) |  |                     | NWI classificatio  | n: PSS           |            |
|  | year? Yes<br>ntly disturbed?<br>problematic? | Are "Normal Circ    | olain in Remarks.)<br>cumstances" preser<br>ain any answers in |                  | No 〇       |
| Summary of Findings - Attach site map showing                | sampling po                                  | oint locations,     | transects, imp   | oortant featu    | ures, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ●<br>Yes ●<br>Yes ● | No ()<br>No ()<br>No () | Is the Sampled Area within a Wetland? | Yes 🖲 No 🔿 |
|---|-------------------------|-------------------------|---------------------------------------|------------|
| Remarks:  |                         |                         |                                       |            |
|   |                         |                         |                                       |            |
|   |                         |                         |                                       |            |

|   | ors:             |               |  | Secondary Indicators (minimum of two required) |
|---|------------------|---------------|--|--|
| Primary Indicators (minimu                                | im of one        | required;     | check all that apply)  | Surface Soil Cracks (B6)                       |
| Surface Water (A1)  |                  |               | True Aquatic Plants (B14)  | Sparsely Vegetated Concave Surface (B8)        |
| High Water Table (A2)                                     |                  |               | Hydrogen Sulfide Odor (C1)   | ✓ Drainage Patterns (B10)                      |
| Saturation (A3)   |                  |               | Oxidized Rhizospheres along Living Roots (C3)                                      | Moss Trim Lines (B16)                          |
| Water Marks (B1)  |                  |               | Presence of Reduced Iron (C4)  | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)                                    |                  |               | Recent Iron Reduction in Tilled Soils (C6)   | Crayfish Burrows (C8)                          |
| Drift deposits (B3)                                       |                  |               | Thin Muck Surface (C7)   | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)                                   |                  |               | Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)  |                  |               |  | Geomorphic Position (D2)                       |
| Inundation Visible on Aeria                               | I Imagery (I     | B7)           |  | Shallow Aquitard (D3)                          |
| Water-Stained Leaves (B9)                                 |                  |               |  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)                                       |                  |               |  | ✓ FAC-neutral Test (D5)                        |
| Field Observations:                                       | 0                | 0             |  |  |
| Surface Water Present?                                    | $Yes  \bigcirc $ | No 🖲          | Depth (inches):  |  |
| Water Table Present?                                      | Yes 🖲            | No $\bigcirc$ | Depth (inches): <u>1</u>   | drology Present? Yes 🖲 No 🔿                    |
| Saturation Present?                                       | 0                | $\sim$        | Wetland Hy   | drology Present? Yes $ullet$ No $igcup$        |
| (includes capillary fringe)                               | Yes 🖲            | No 🔿          | Depth (inches):1   |  |
| (includes capillary fringe)                               |                  |               | Depth (inches): <u>1</u><br>ring well, aerial photos, previous inspections), if av | ailable:                                       |
| (includes capillary fringe)                               |                  |               |  | ailable:                                       |
| (includes capillary fringe)                               |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
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| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |
| (includes capillary fringe)<br>Describe Recorded Data (st |                  |               |  | ailable:                                       |

| · · ·  |                     | Dominant                           |                     | Sampling Point: DP-053   |
|--|---------------------|------------------------------------|---------------------|--|
| Tree Stratum (Plot size:)                                  | Absolute<br>% Cover | -Species? -<br>Rel.Strat.<br>Cover | Indicator<br>Status | Dominance Test worksheet:  |
| 1,   | 0                   | 0.0%                               |                     | Number of Dominant Species           That are OBL, FACW, or FAC:         2         (A)   |
| 2  |                     | 0.0%                               |                     |  |
| 3.   |                     | 0.0%                               |                     | Total Number of Dominant   |
| 4  |                     | 0.0%                               |                     | Species Across All Strata: (B)   |
| 4<br>5   |                     | 0.0%                               |                     | Percent of dominant Species  |
| 6.   |                     | 0.0%                               |                     | That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  |
| 7  |                     | 0.0%                               |                     | Prevalence Index worksheet:  |
| 8.   |                     | 0.0%                               |                     | Total % Cover of: Multiply by:   |
|  | 0                   | = Total Cover                      |                     | <b>OBL species</b> 0 <b>x 1</b> = 0  |
| Sapling-Sapling/Shrub Stratum (Plot size:)                 |                     |                                    |                     | FACW species $20 \times 2 = 40$  |
| 1  | 0                   | 0.0%                               |                     | FAC species $10 \times 3 = 30$   |
| 2  |                     | 0.0%                               |                     | FACU species $0 \times 4 = 0$  |
| 3  |                     | 0.0%                               |                     |  |
| 4  |                     | 0.0%                               |                     |  |
| 5  |                     | 0.0%                               |                     | Column Totals: <u>30</u> (A) <u>70</u> (B)   |
| 6  | -                   | 0.0%                               |                     | Prevalence Index = $B/A = 2.333$   |
| 7  |                     | 0.0%                               |                     | Hydrophytic Vegetation Indicators:   |
| 8  |                     | 0.0%                               |                     | Rapid Test for Hydrophytic Vegetation  |
| 9  | 0                   | 0.0%                               |                     | ✓ Dominance Test is > 50%  |
| 10   |                     | 0.0%                               |                     | ✓ Prevalence Index is ≤3.0 $^{1}$  |
| _Shrub Stratum_ (Plot size:)                               | :                   | = Total Cover                      |                     | Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 1. Rosa bracteata  | 0                   | 0.0%                               | UPL                 | data in Remarks or on a separate sheet)  |
| 2  | 0                   | 0.0%                               |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  |                     | 0.0%                               |                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  | 0                   | 0.0%                               |                     | be present, unless disturbed or problematic.   |
| 5  | 0                   | 0.0%                               |                     | Definition of Vegetation Strata:   |
| 6  |                     | 0.0%                               |                     | Four Vegetation Strata:  |
| 7  | 0                   | 0.0%                               |                     | Tree stratum – Consists of woody plants, excluding vines, 3 in.<br>(7.6 cm) or more in diameter at breast height (DBH), regardless |
| Herb Stratum (Plot size:)                                  |                     | = Total Cover                      |                     | of height.   |
| 1. Juncus effusus  | 20                  | 66.7%                              | FACW                | Sapling/shrub stratum – Consists of woody plants, excluding<br>vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.     |
| 2. Xanthium strumarium                                     | 10                  | 33.3%                              | FAC                 | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| 3.   | 0                   | 0.0%                               |                     | regardless of size, and all other plants less than 3.28 ft tall.   |
| 4  | 0                   | 0.0%                               |                     | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5.   | 0                   | 0.0%                               |                     | in height.   |
| 6  | 0                   | 0.0%                               |                     | Five Vegetation Strata:  |
| 7  | 0                   | 0.0%                               |                     | _  |
| 8  | 0                   | 0.0%                               |                     | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in            |
| 9  | 0                   | 0.0%                               |                     | diameter at breast height (DBH).   |
| 10   | 0                   | 0.0%                               |                     | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less         |
| 11   | 0                   | 0.0%                               |                     | than 3 in. (7.6 cm) DBH.   |
| 12   | 0                   | 0.0%                               |                     | Shrub stratum – Consists of woody plants, excluding woody<br>vines, approximately 3 to 20 ft (1 to 6 m) in height.                 |
| Woody Vine Stratum (Plot size:)                            | 30 =                | = Total Cover                      |                     | Herb stratum – Consists of all herbaceous (non-woody) plants,  |
| <u>1.</u>  | 0                   | 0.0%                               |                     | including herbaceous vines, regardless of size, and woody  |
| 2  | 0                   | 0.0%                               |                     | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 3  |                     | 0.0%                               |                     | Woody vines – Consists of all woody vines, regardless of   |
| 4  | 0                   | 0.0%                               |                     | height.  |
| 5  | 0                   | 0.0%                               |                     |  |
| 6  | 0                   | 0.0%                               |                     | Hydrophytic<br>Vegetation  |
| 0  |                     | = Total Cove                       |                     | Present? Yes No  |
| Remarks: (Include photo numbers here or on a separate shee |                     |                                    |                     |  |

Remarks: (Include photo numbers here or on a separate sheet.)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

| Profile Description            | n: (Describe to      | the depth ne | eded to documen     | t the indic   | ator or co   | nfirm the a           | absence of indicators.)                     |   |
|--------------------------------|----------------------|--------------|---------------------|---------------|--------------|-----------------------|---|---|
| Depth ——                       | Matrix               |              |                     | dox Featu     | 1            |                       |   |   |
|                                | olor (moist)         | %            | Color (moist)       | %             | Tvpe         | Loc <sup>2</sup>      | Texture                                     | Remarks   |
| 0-20 10                        | DYR 5/2              | 95           | 10YR 4/6            | _ 5           | RM           | M                     | Silty Clay                                  |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                | <u>_</u>             |              |                     |               |              |                       |   |   |
|                                |                      |              | <u>_</u>            |               |              |                       |   |   |
|                                |                      | ,            |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
| <sup>1</sup> Type: C=Concentra | tion. D=Depletio     | n. RM=Reduc  | ed Matrix, CS=Cover | ed or Coate   | ed Sand Gra  | ins <sup>2</sup> Loca | tion: PL=Pore Lining. M=Ma                  | atrix   |
| Hydric Soil Indica             | itors:               |              |                     |               |              |                       | Indicators for Proble                       | motio Uludria Caila <sup>3</sup> .                    |
| Histosol (A1)                  |                      |              | Dark Surface (      | S7)           |              |                       |   |   |
| Histic Epipedon                | (A2)                 |              | Polyvalue Belo      |               | (S8) (MLRA   | 147,148)              | 2 cm Muck (A10)                             | (MLRA 147)  |
| Black Histic (A3)              |                      |              | Thin Dark Surf      |               |              |                       | Coast Prairie Redo<br>(MLRA 147,148)        | ox (A16)  |
| Hydrogen Sulfid                |                      |              | Loamy Gleyed        |               |              |                       |   |   |
| Stratified Layers              |                      |              | Depleted Matri      |               |              |                       | Piedmont Floodpla<br>(MLRA 136, 147)        | ain Soils (F19)                                       |
| 2 cm Muck (A10                 |                      |              | Redox Dark Su       |               |              |                       | Very Shallow Dark                           | Surface (TE12)  |
|                                | Dark Surface (A      | 11)          | Depleted Dark       |               | 7)           |                       | Other (Explain in I                         |   |
| Thick Dark Surfa               |                      | ,            | Redox Depress       |               |              |                       |   | Remarks)  |
|                                | neral (S1) (LRR N    | I            | Iron-Manganes       |               | (F12) (LRR I | Ν,                    |   |   |
| MLRA 147, 148)                 |                      | l,           | MLRA 136)           |               |              |                       |   |   |
| Sandy Gleyed N                 | latrix (S4)          |              | Umbric Surfac       | e (F13) (MI   | RA 136, 12   | 2)                    | 3   |   |
| Sandy Redox (S                 | 5)                   |              | Piedmont Floo       | dplain Soils  | (F19) (MLF   | RA 148)               | <sup>o</sup> Indicators of I<br>wetland byd | nydrophytic vegetation and<br>rology must be present, |
| Stripped Matrix                | (S6)                 |              | Red Parent Ma       | aterial (F21) | (MLRA 12     | 7, 147)               |   | sturbed or problematic.                               |
| De staistine Lenne             | (if a h a a m a a l) |              |                     |               |              |                       |   |   |
| Restrictive Layer (            |                      |              |                     |               |              |                       |   |   |
| Type:                          |                      |              |                     |               |              |                       | Hydric Soil Present?                        | Yes 🔍 No 🔾  |
| Depth (inches):                |                      |              |                     |               |              |                       | <b>,</b>                                    |   |
| Remarks:                       |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
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|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
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|                                |                      |              |                     |               |              |                       |   |   |
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|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |
|                                |                      |              |                     |               |              |                       |   |   |

| Project/Site: Telesto Solar Project                                    | City/County:                                 | Cecilia/Hardin      | Samp  | oling Date: 23-M | ar-22      |
|--|--|---------------------|---|------------------|------------|
| Applicant/Owner: 7x Energy   |  | State: KY           | Sampling Po   | oint: DF         | P-054      |
| Investigator(s): S. Waltman and C. Martin                              | Section, Tow                                 | nship, Range: S     | т   | R                |            |
| Landform (hillslope, terrace, etc.):                                   | Local relief (co                             | ncave, convex, none | ):  | Slope:0.0        | %/°        |
| Subregion (LRR or MLRA):   | 37.686783                                    | Long.:              | -85.97609   | Datum            |            |
| Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rarely f | flooded)                                     |                     | NWI classification  | : PFO            |            |
|  | ear? Yes •<br>tly disturbed?<br>problematic? | Are "Normal Circ    | elain in Remarks.)<br>cumstances" present<br>ain any answers in F |                  | No O       |
| Summary of Findings - Attach site map showing s                        | sampling po                                  | oint locations,     | transects, imp  | ortant feat      | ures, etc. |

| Hydrophytic Vegetation Present?<br>Hydric Soil Present?<br>Wetland Hydrology Present? | Yes ●<br>Yes ●<br>Yes ● | No ()<br>No ()<br>No () | Is the Sampled Area within a Wetland? | Yes 🖲 No 🔿 |
|---|-------------------------|-------------------------|---------------------------------------|------------|
| Remarks:  |                         |                         |                                       |            |

| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required) |
|--|--|
| Primary Indicators (minimum of one required; check all that apply)                                 | Surface Soil Cracks (B6)                       |
| Surface Water (A1) True Aquatic Plants (B14)   | Sparsely Vegetated Concave Surface (B8)        |
| ✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)   | Drainage Patterns (B10)                        |
| Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)                                      | Moss Trim Lines (B16)                          |
| Water Marks (B1)   | Dry Season Water Table (C2)                    |
| Sediment Deposits (B2)   | Crayfish Burrows (C8)                          |
| Drift deposits (B3)  | Saturation Visible on Aerial Imagery (C9)      |
| Algal Mat or Crust (B4)  | Stunted or Stressed Plants (D1)                |
| Iron Deposits (B5)   | Geomorphic Position (D2)                       |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquitard (D3)                          |
| ✓ Water-Stained Leaves (B9)  | Microtopographic Relief (D4)                   |
| Aquatic Fauna (B13)  | FAC-neutral Test (D5)                          |
| Field Observations:  |  |
| Surface Water Present? Yes  No Depth (inches): 3   |  |
| Water Table Present? Yes  No Depth (inches): 1   | rdrology Present? Yes 🖲 No 🖯                   |
| Saturation Present? (includes capillary fringe) Yes No Depth (inches): 1                           | ydrology Present? Yes 🔍 No 🔾                   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if av | ailable:                                       |
|  |  |
| Remarks:   |  |
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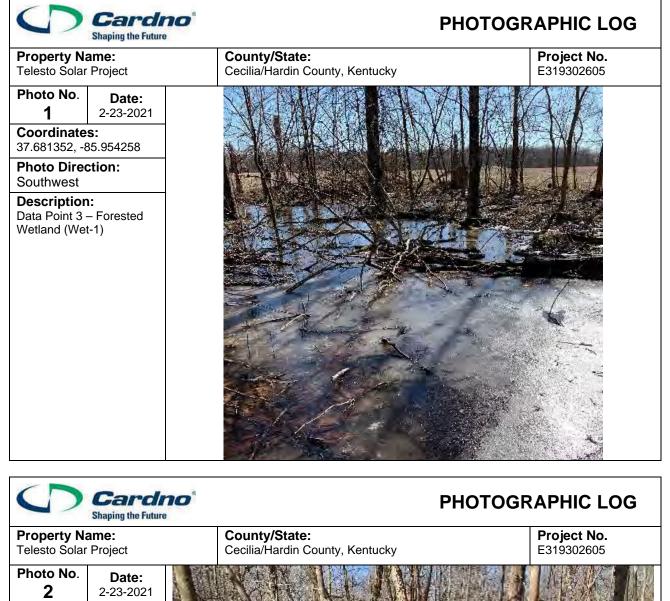
| . , ,  |             |               | minant    |           | Sampling Point: DP-054   |
|--|-------------|---------------|-----------|-----------|--|
|  | Absolute    | Rel           | .ouuu.    | Indicator | Dominance Test worksheet:  |
| _Tree Stratum (Plot size:)                                 | % Cover     |               | ver       | Status    | Number of Dominant Species   |
| 1. Liquidambar styraciflua                                 | 30          | ⊻_            | 75.0%     | FAC       | That are OBL, FACW, or FAC: (A)  |
| 2. Acer rubrum   | 10          |               | 25.0%     | FAC       | Total Number of Dominant   |
| 3  | 0           |               | 0.0%      |           | Species Across All Strata: <u>2</u> (B)  |
| 4  | 0           |               | 0.0%      |           |  |
| 5  | 0           |               | 0.0%      |           | Percent of dominant Species<br>That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)   |
| 6  | 0           |               | 0.0%      |           |  |
| 7  |             |               | 0.0%      |           | Prevalence Index worksheet:  |
| 8  |             | $\square_{-}$ | 0.0%      |           | Total % Cover of: Multiply by:   |
| Sapling-Sapling/Shrub Stratum (Plot size:                  | 40          | = Tot         | tal Cover |           | OBL species $0 \times 1 = 0$   |
| 1  |             | $\square$     | 0.0%      |           | FACW species $0 \times 2 = 0$  |
| 2  |             |               | 0.0%      |           | <b>FAC species</b> $40 \times 3 = 120$   |
| 3  |             |               | 0.0%      |           | FACU species $0 \times 4 = 0$  |
| 4  |             | $\square$     | 0.0%      |           | UPL species x 5 =  |
| 5  |             | $\square$     | 0.0%      |           | Column Totals:40(A)120(B)  |
| 6  |             | $\square$     | 0.0%      |           | Prevalence Index = $B/A = 3.000$   |
| 7  | _           | $\square$     | 0.0%      |           |  |
| 8  | _           |               | 0.0%      |           | Hydrophytic Vegetation Indicators:   |
| 9  |             |               | 0.0%      |           | Rapid Test for Hydrophytic Vegetation  |
| 10.  | 0           |               | 0.0%      |           | ✓ Dominance Test is > 50%  |
|  |             | <br>= Tot     | tal Cover |           | ✓ Prevalence Index is $\leq 3.0^{1}$   |
| <u>Shrub Stratum</u> (Plot size:)<br>1                     | 0           |               | 0.0%      |           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)                             |
| 2  | 0           |               | 0.0%      |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3  | 0           |               | 0.0%      |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 4  |             |               | 0.0%      |           | be present, unless disturbed or problematic.   |
| 5  |             |               | 0.0%      |           | Definition of Vegetation Strata:   |
| 6  |             |               | 0.0%      |           | Four Vegetation Strata:  |
| 7  | 0           |               | 0.0%      |           | Tree stratum – Consists of woody plants, excluding vines, 3 in.  |
| Herb Stratum (Plot size:)                                  | 0           | = Tot         | tal Cover |           | (7.6 cm) or more in diameter at breast height (DBH), regardless<br>of height.  |
|  | 0           |               | 0.0%      |           | Sapling/shrub stratum – Consists of woody plants, excluding  |
| 1  |             |               | 0.0%      |           | vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  |
| 23   |             |               | 0.0%      |           | Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall. |
| 4.   |             |               | 0.0%      |           | Woody vines – Consists of all woody vines greater than 3.28 ft   |
| 5  | 0           | $\square$     | 0.0%      |           | in height.   |
| 6  |             |               | 0.0%      |           |  |
| 7  |             | $\square$     | 0.0%      |           | Five Vegetation Strata:  |
| 8.   |             |               | 0.0%      |           | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in        |
| 9.   | 0           |               | 0.0%      |           | diameter at breast height (DBH).   |
| 10   |             |               | 0.0%      |           | Sapling stratum – Consists of woody plants, excluding woody<br>vines, approximately 20 ft (6 m) or more in height and less     |
| 11   |             |               | 0.0%      |           | than 3 in. (7.6 cm) DBH.   |
| 12   | 0           |               | 0.0%      |           | Shrub stratum – Consists of woody plants, excluding woody  |
|  | 0           | = Tot         | tal Cover |           | vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| Woody Vine Stratum (Plot size: )                           | 0           |               | 0.0%      |           | Herb stratum – Consists of all herbaceous (non-woody) plants,<br>including herbaceous vines, regardless of size, and woody     |
| 1  | 0           |               | 0.0%      |           | species, except woody vines, less than approximately 3 ft (1 m) in height.   |
| 2  |             |               | 0.0%      |           | · •  |
| 3  | -           |               | 0.0%      |           | Woody vines – Consists of all woody vines, regardless of<br>height.  |
| 4  |             |               |           |           |  |
| 5  | 0           |               | 0.0%      |           | Hydrophytic  |
| 6  | 0           | - To          | tal Cove  |           | Vegetation<br>Present? Yes • No ·  |
| Remarks: (Include photo numbers here or on a separate shee |             | - 10          |           |           |  |
| Remarks: (Include proto numbers here or on a separate shee | <i>tι.)</i> |               |           |           |  |

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

| Depth       Matrix       Redox Features         (Inches)       Color (moist)       %       Color (moist)       %       Tore 1       Loc2       Texture       Remarks         0-20       10YR       5/2       95       10YR       4/6       5       RM       M       Silty Clay   |
|--|
| 0-20       10YR       5/2       95       10YR       4/6       5       RM       M       Silty Clay  |
| I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix         Hydric Soil Indicators:       Indicators:         Histosol (A1)       Dark Surface (S7)         Histosol (A1)       Dark Surface (S3)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)         Hydrigen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Stratified Layers (A5)       V Depleted Matrix (F2)         Depleted Balow Dark Surface (A11)       Depleted Dark Surface (F7)   |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Hydric Soil Indicators:       Dark Surface (S7)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks) |
| Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)   |
| Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)                                  |
| Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16) (MLRA 147, 148)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)   |
| Black Histic (A3)       THILD Dark Sulface (S9) (MLKA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (MLRA 136, 147)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)  |
| Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)  |
| Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)   |
| 2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)   |
| Depleted Below Dark Surface (A11)  |
|  |
|  |
|  |
| MLRA 147, 148) MLRA 136)   |
| Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)  |
| Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,   |
| Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  |
| Restrictive Layer (if observed):   |
| Type:  |
| Depth (inches): Hydric Soil Present? Yes   |
|  |
| Remarks:   |
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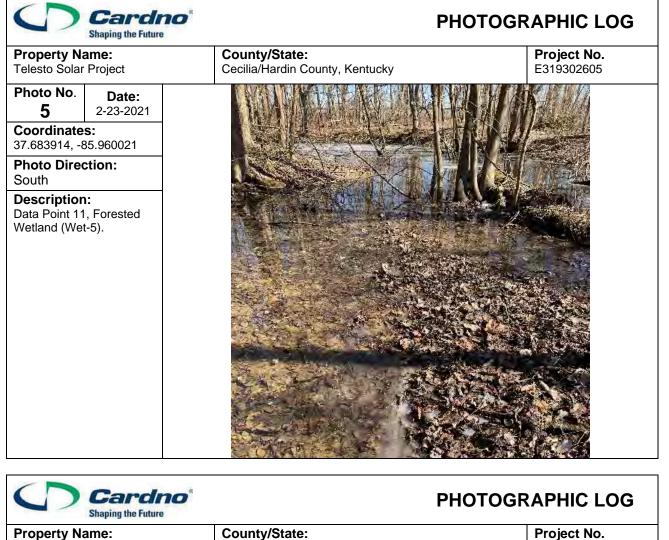
Telesto Solar Farm Critical Analysis Report

# APPENDIX B PHOTOGRAPHIC LOG









Property Name: Telesto Solar Project

Photo No. Date: 6 2-23-2021

**Coordinates:** 37.685288, -85.959545

Photo Direction:

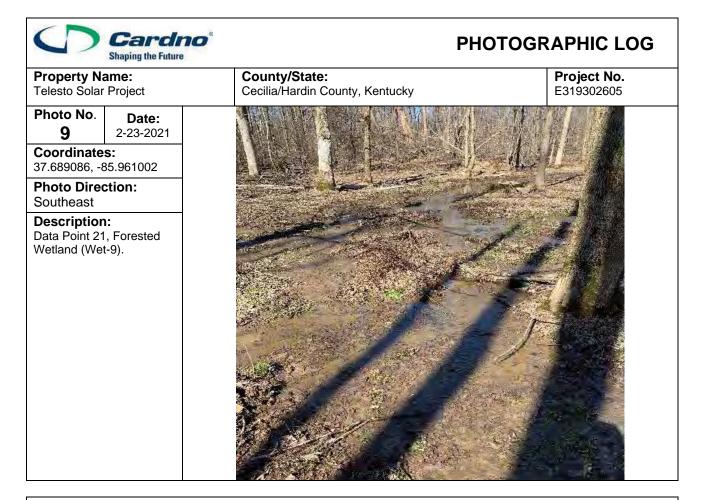
South

**Description:** Data Point 14, Forested Wetland (Wet-6).

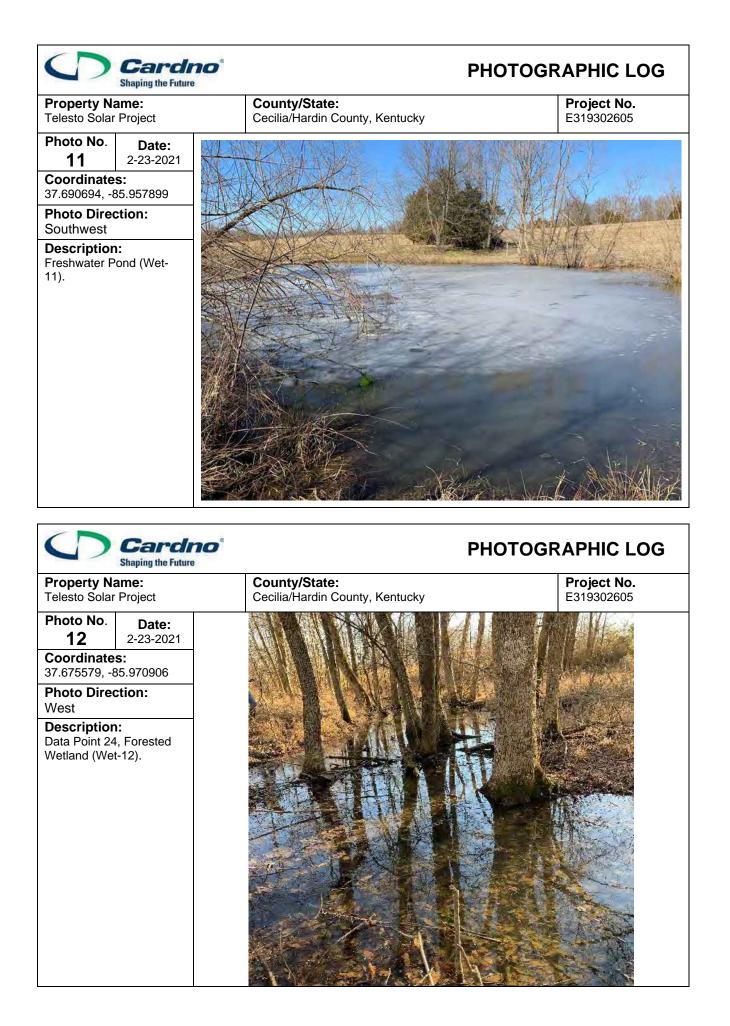
Project No. E319302605

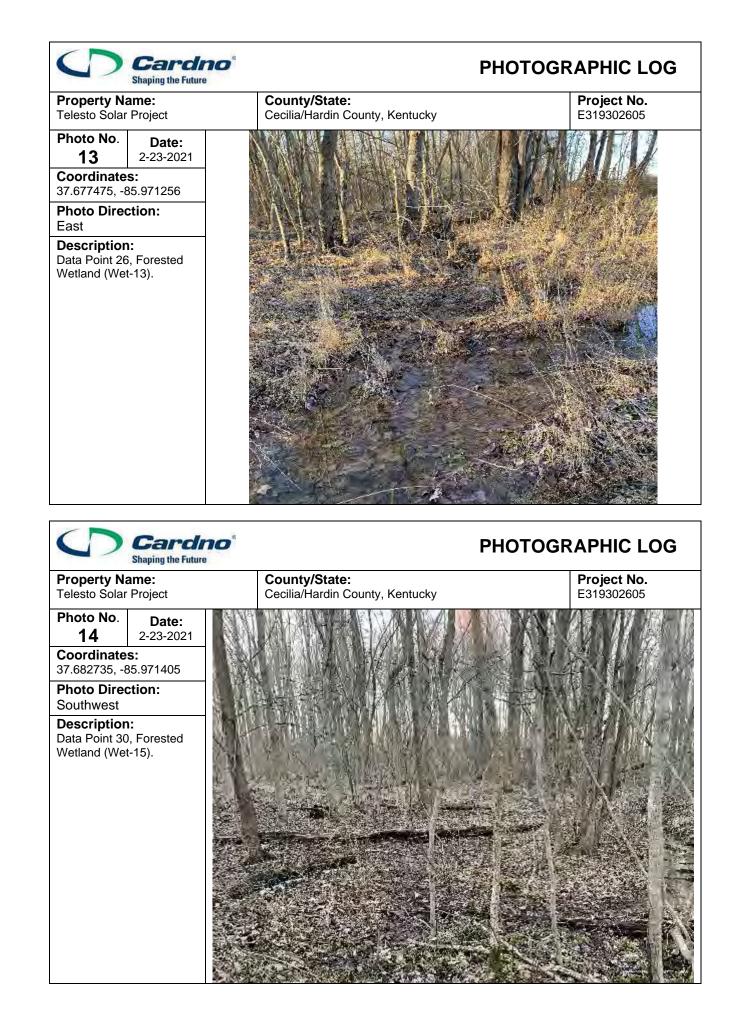


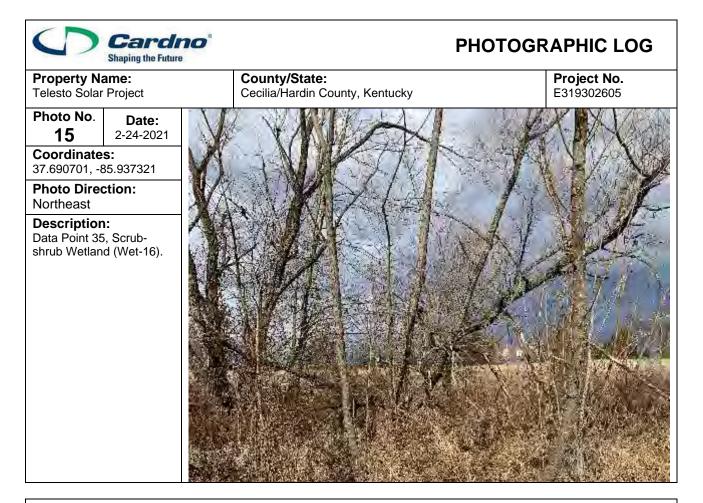






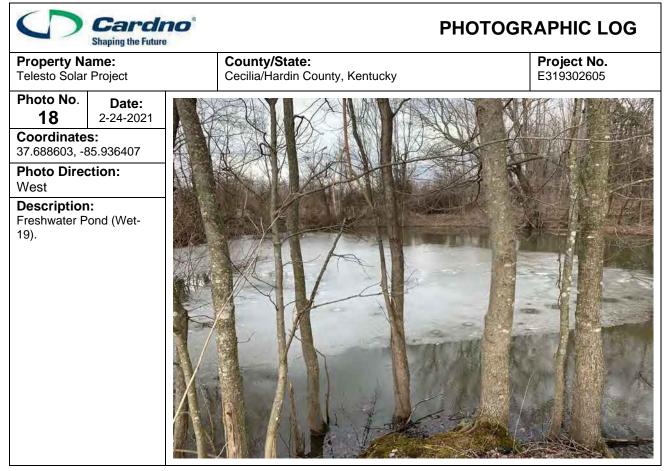


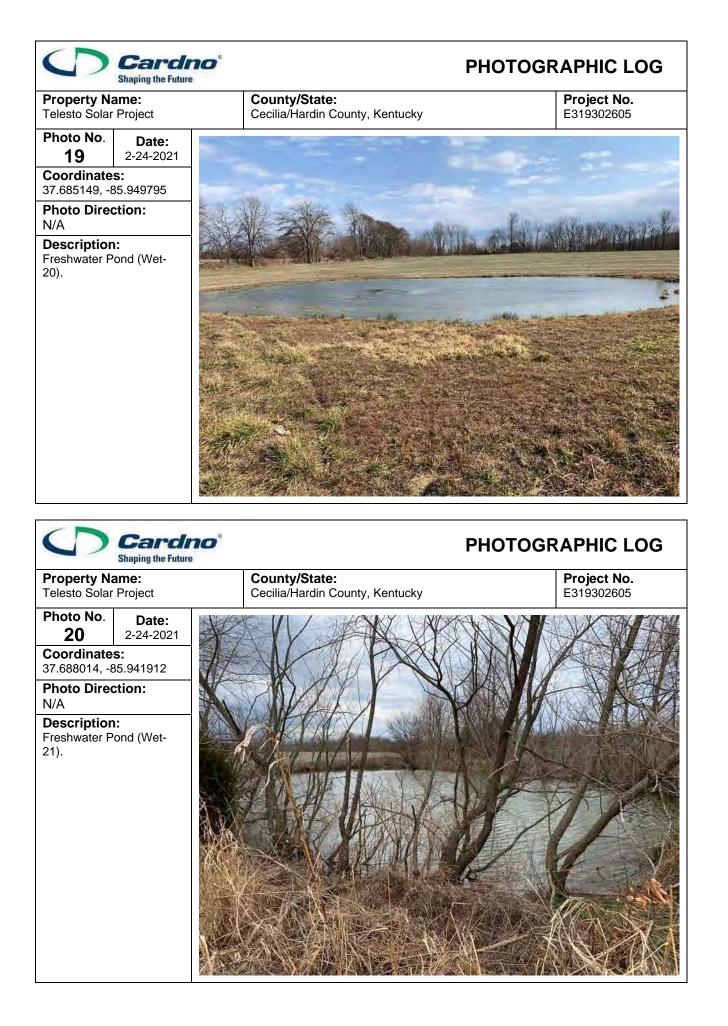






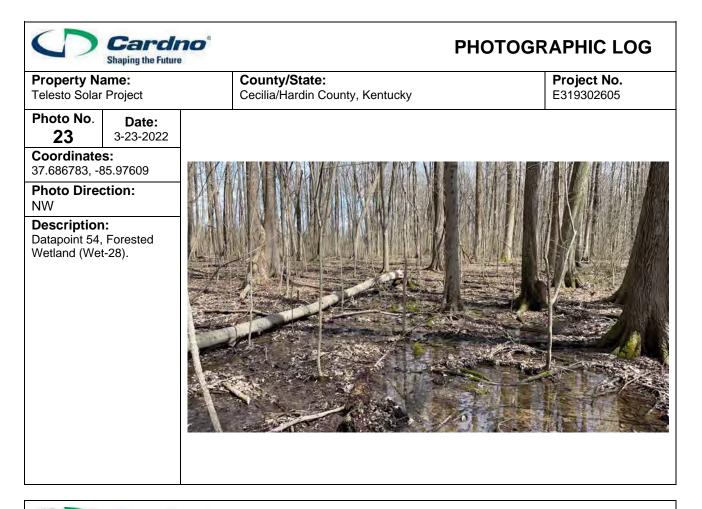


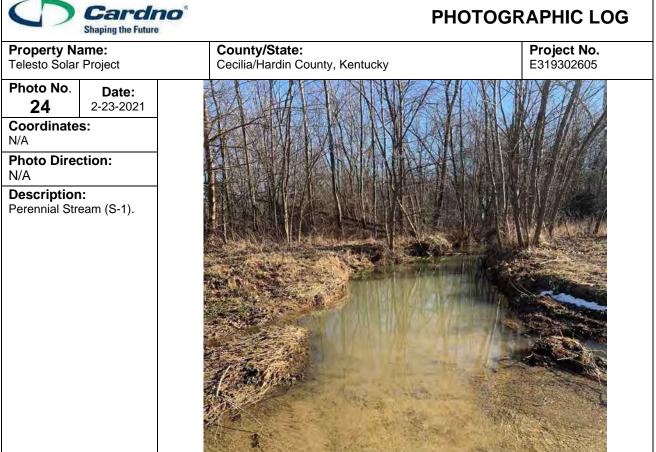


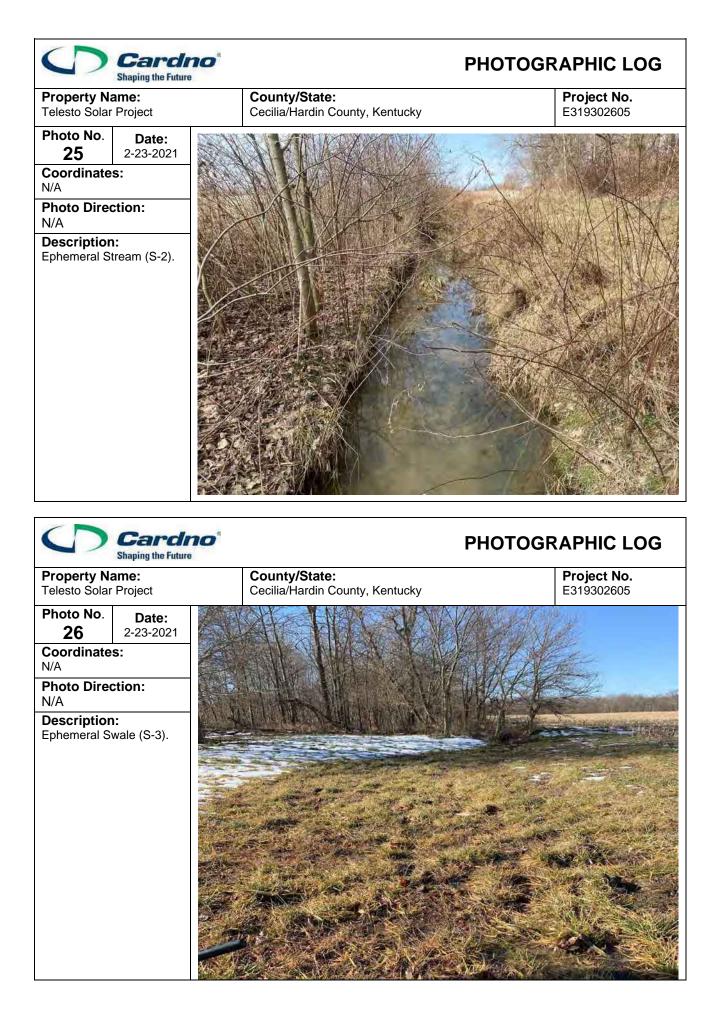


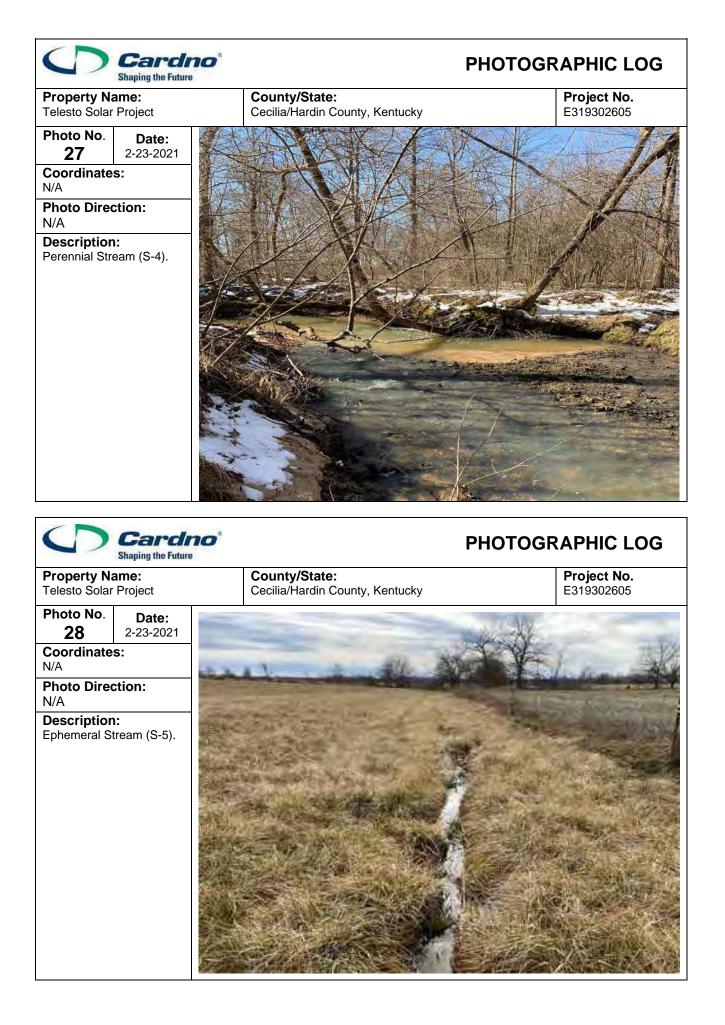




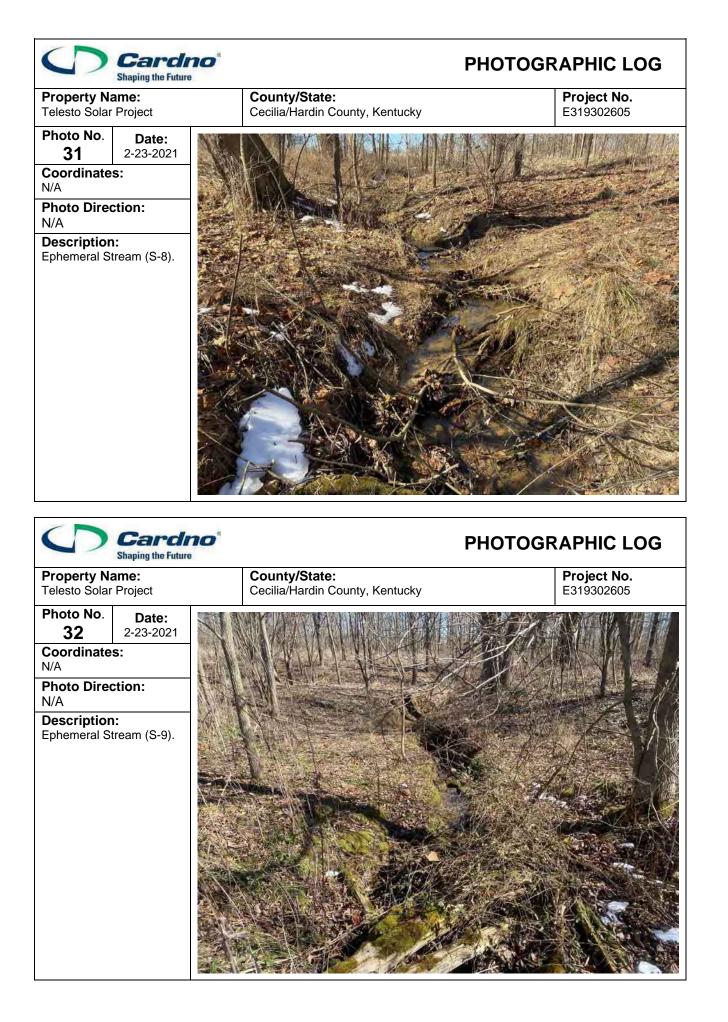


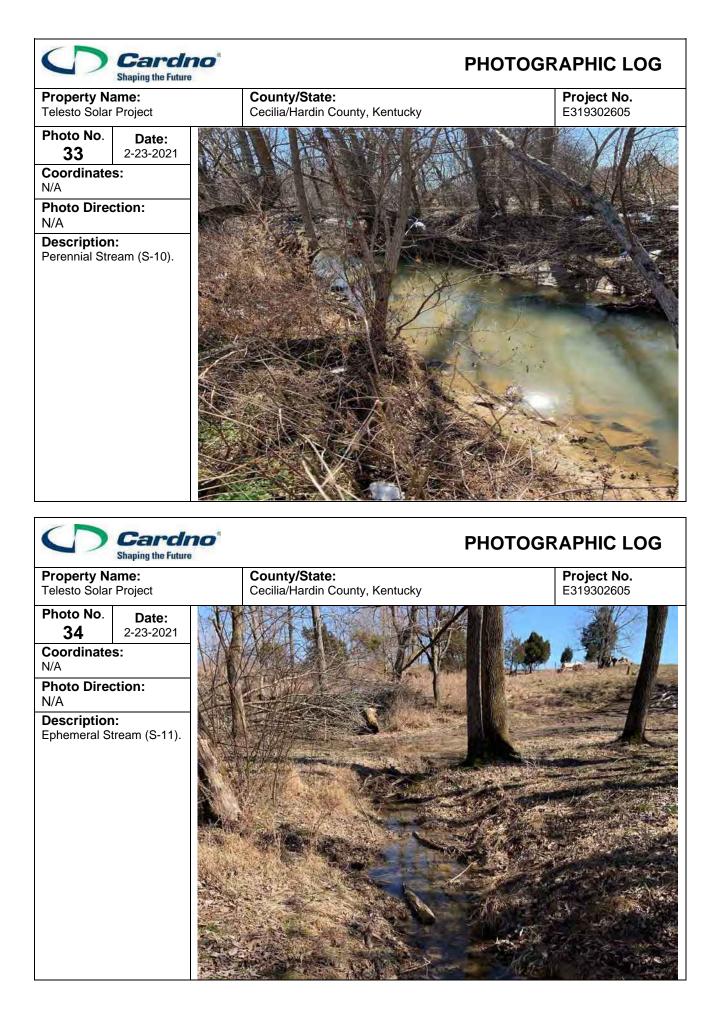




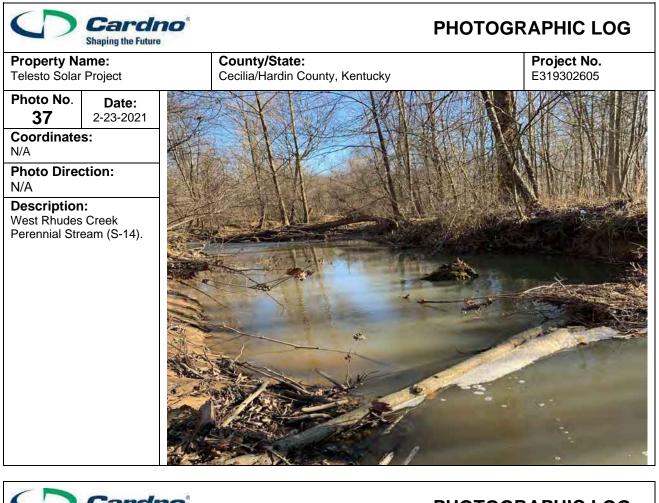




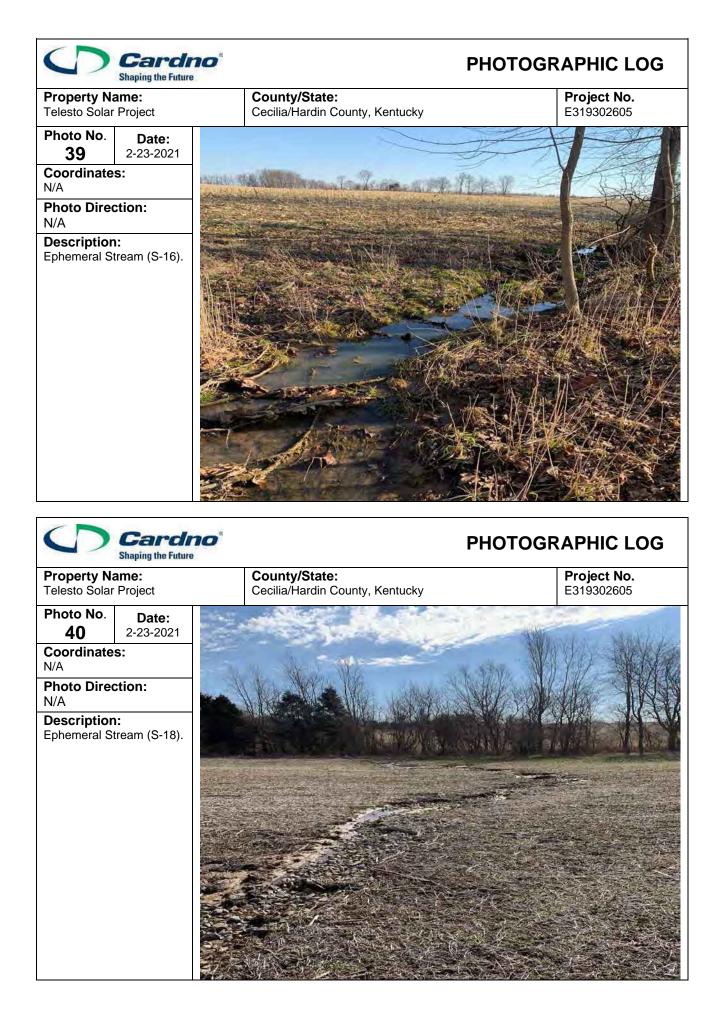






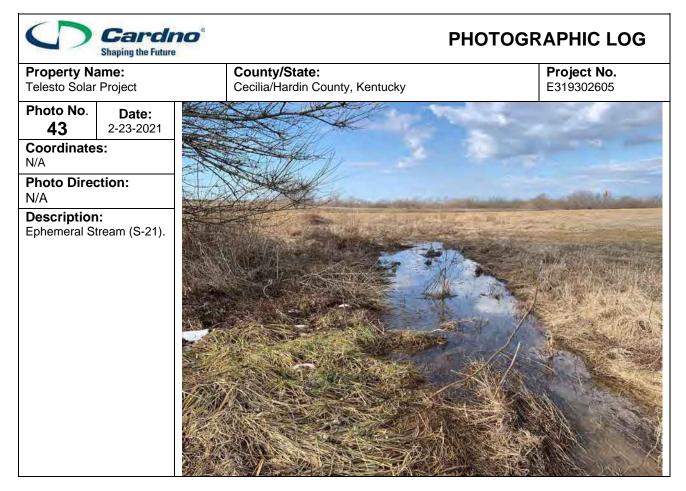




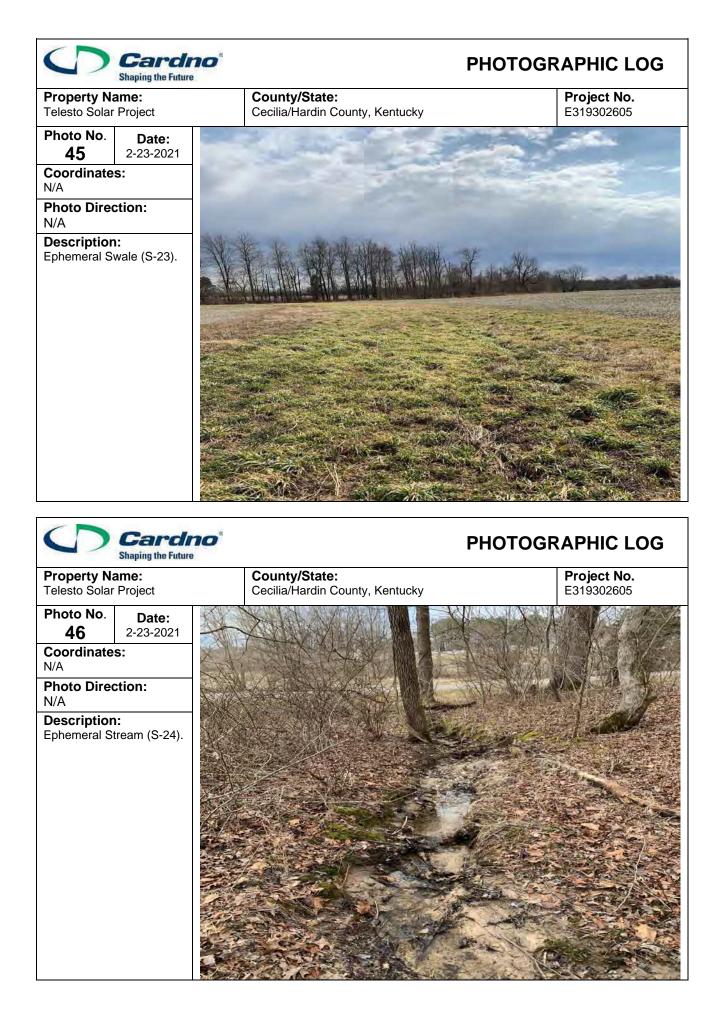


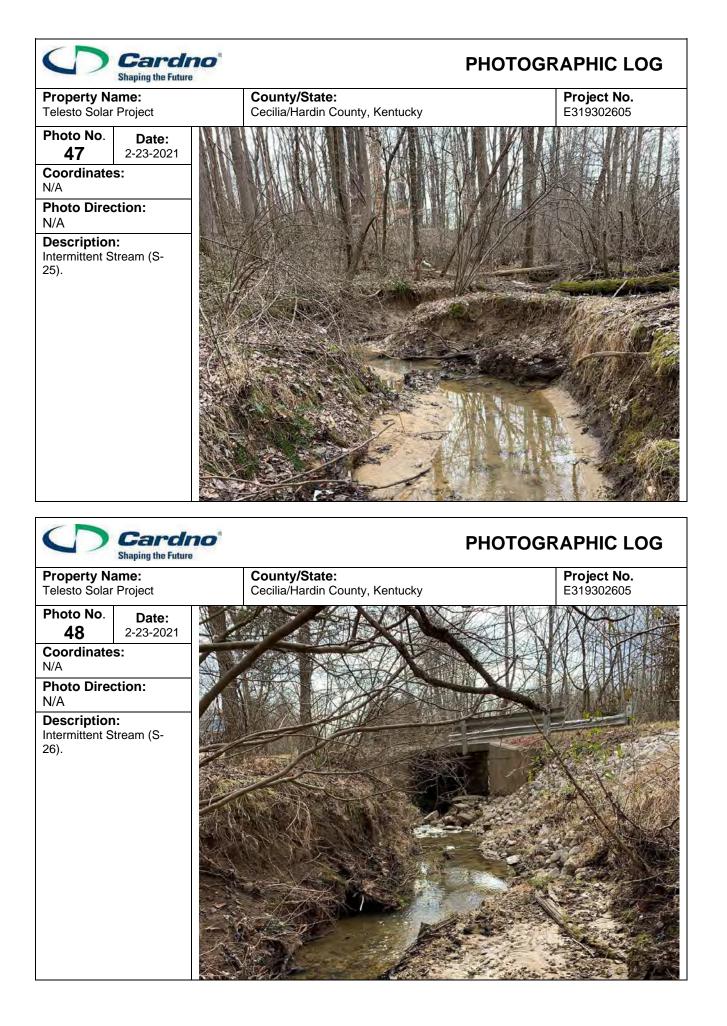




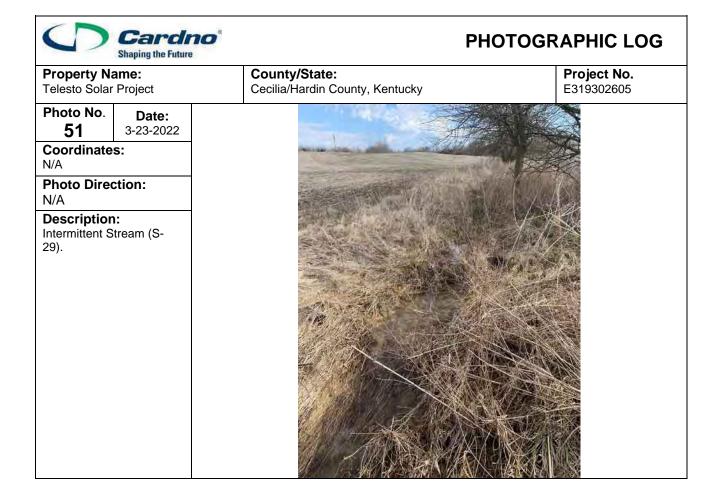






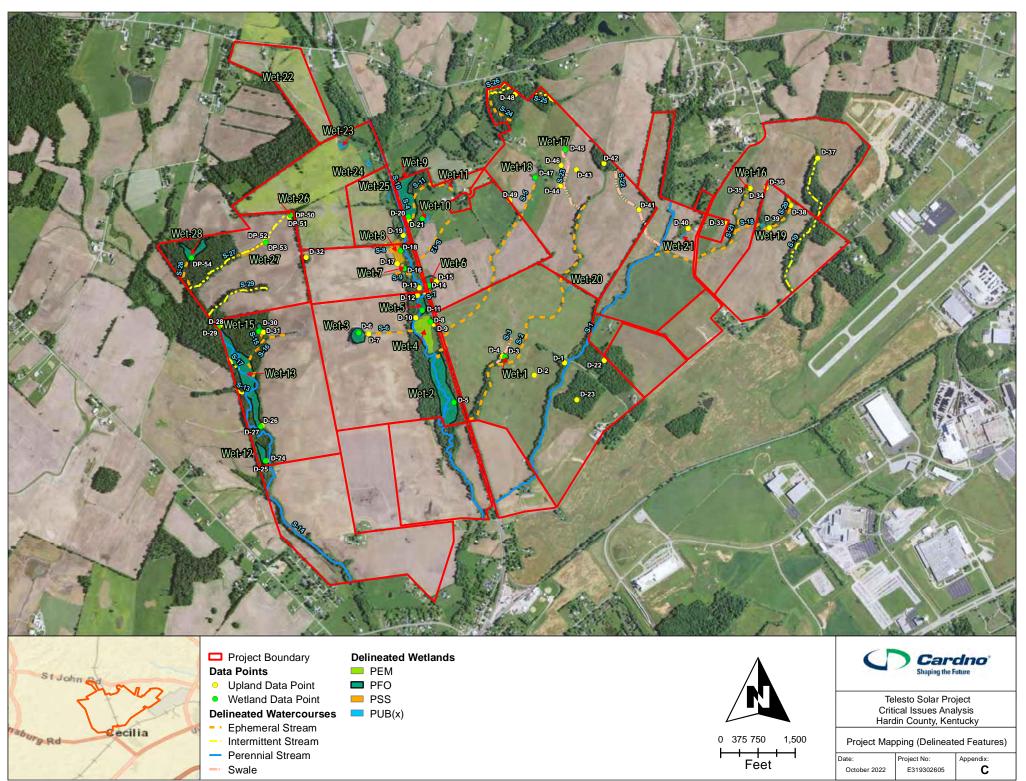


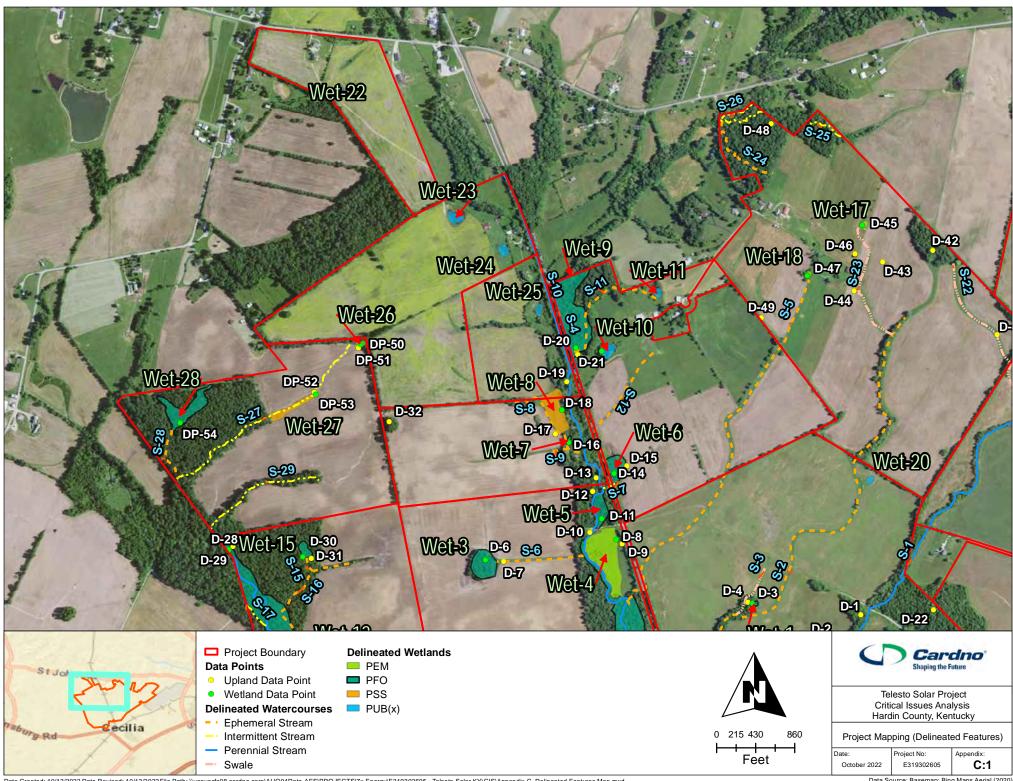


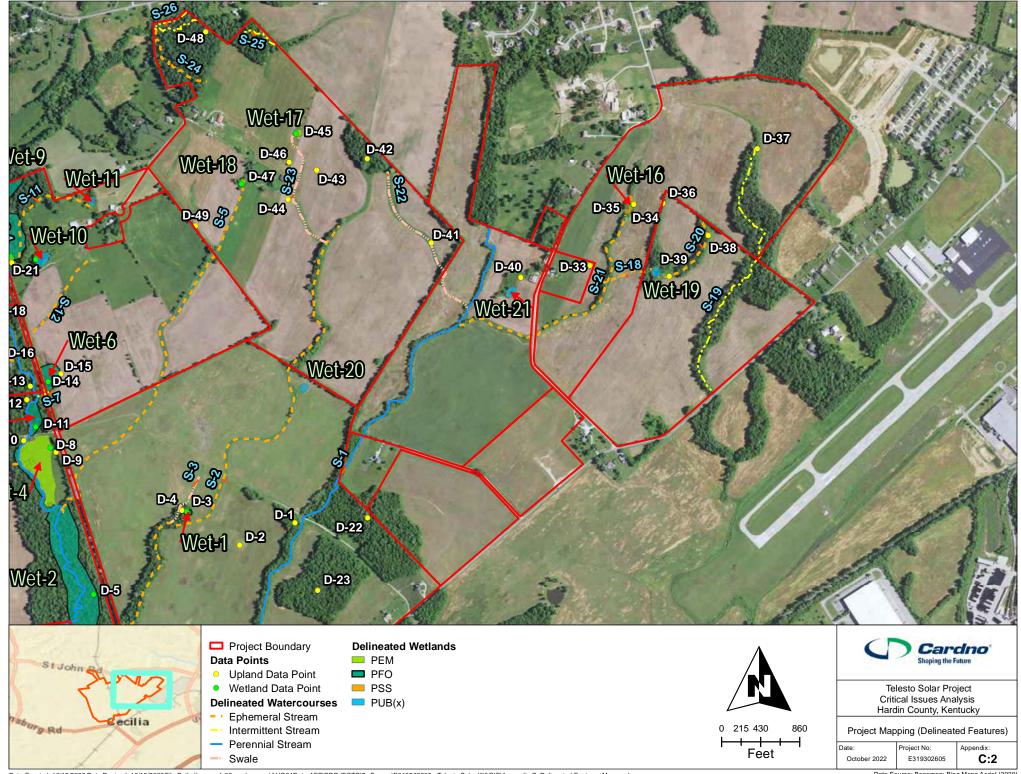


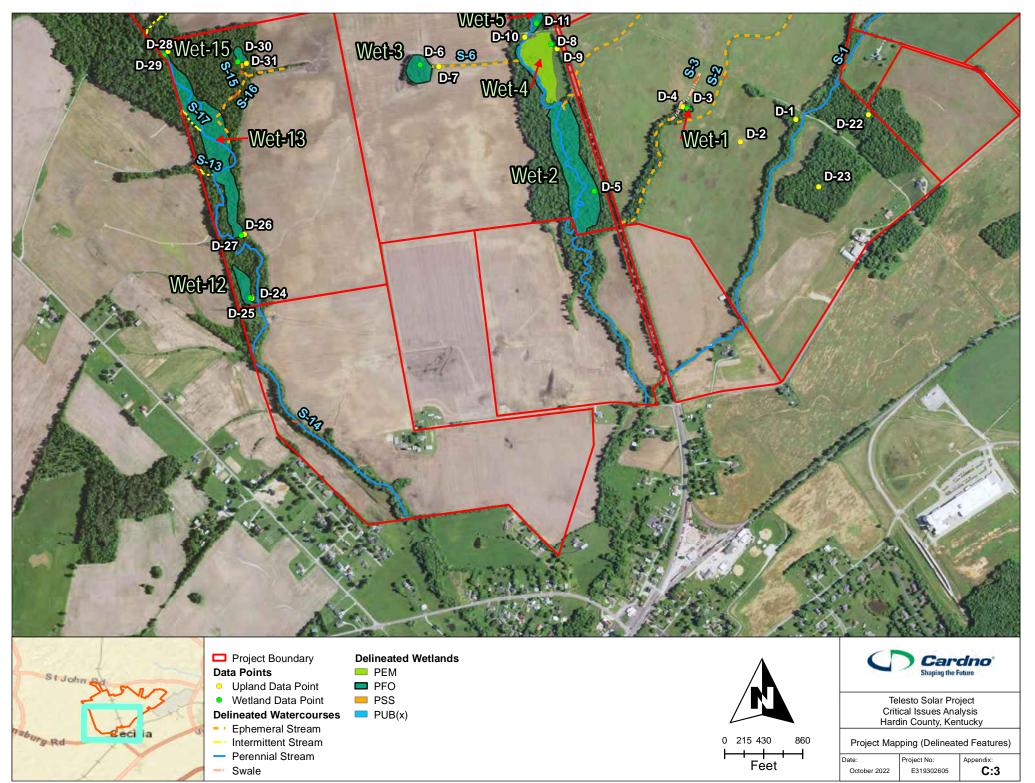
Telesto Solar Farm Critical Analysis Report

# APPENDIX









Telesto Solar Farm Critical Analysis Report

# APPENDIX

 $\mathbf{D}$ 

## STREAM CHARACTERIZATION DATASHEETS

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.68117                |
|---|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.94987              |
| Total Points:<br>Stream is at least intermittent 35.5: Perennial<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 1<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>19.5</u> )   | Absent         | Weak             | Moderate            | Strong           |
|--|----------------|------------------|---------------------|------------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                     | 0              | 1                | 2                   | <mark>3</mark>   |
| 2. Sinuosity of channel along thalweg  | 0              | 1                | 2                   | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence              | 0              | 1                | 2                   | 3                |
| 4. Particle size of stream substrate   | 0              | 1                | 2                   | 3                |
| 5. Active/relict floodplain  | <mark>0</mark> | 1                | 2                   | 3                |
| 6. Depositional bars or benches  | 0              | 1                | 2                   | 3                |
| 7. Recent alluvial deposits  | 0              | 1                | 2                   | 3                |
| 8. Headcuts  | 0              | <mark>1</mark>   | 2                   | 3                |
| 9. Grade control   | 0              | 0.5              | <mark>1</mark>      | 1.5              |
| 10. Natural valley   | 0              | 0.5              | 1                   | <mark>1.5</mark> |
| 11. Second or greater order channel  | No             | = 0              | Yes:                | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology(Subtotal = <u>9.5</u> ) |                |                  |                     |                  |
| 12. Presence of Baseflow   | 0              | 1                | 2                   | 3                |
| 13. Iron oxidizing bacteria  | 0              | <mark>1</mark>   | 2                   | 3                |
| 14. Leaf litter  | 1.5            | <mark>1</mark>   | 0.5                 | 0                |
| 15. Sediment on plants or debris   | 0              | 0.5              | <mark>1</mark>      | 1.5              |
| 16. Organic debris lines or piles  | 0              | 0.5              | 1                   | <mark>1.5</mark> |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3 |                  |                     |                  |
| C. Biology (Subtotal = <u>6.25</u> )   |                |                  | ·                   |                  |
| 18. Fibrous roots in streambed   | 3              | <mark>2</mark>   | 1                   | 0                |
| 19. Rooted upland plants in streambed  | 3              | <mark>2</mark>   | 1                   | 0                |
| 20. Macrobenthos (note diversity and abundance)  | <mark>0</mark> | 1                | 2                   | 3                |
| 21. Aquatic Mollusks   | <mark>0</mark> | 1                | 2                   | 3                |
| 22. Fish   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 23. Crayfish   | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 24. Amphibians   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 25. Algae  | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 26. Wetland plants in streambed  |                | FACW = 0.75;     | OBL = 1.5 Other = 0 |                  |
| Notes:   |                |                  |                     |                  |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.67993                |
|---|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.95537              |
| Total Points:<br>Stream is at least intermittent: 17.25: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 2<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>10</u> )             | Absent              | Weak               | Moderate         | Strong |
|--|---------------------|--------------------|------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank    | 0                   | 1                  | 2                | 3      |
| 2. Sinuosity of channel along thalweg                | 0                   | <mark>1</mark>     | 2                | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, | 0                   | 1                  | 2                | 3      |
| ripple-pool sequence                                 | 0                   | I                  |                  |        |
| 4. Particle size of stream substrate                 | 0                   | 1                  | 2                | 3      |
| 5. Active/relict floodplain                          | 0                   | <mark>1</mark>     | 2                | 3      |
| 6. Depositional bars or benches                      | 0                   | <mark>1</mark>     | 2                | 3      |
| 7. Recent alluvial deposits                          | 0                   | 1                  | 2                | 3      |
| 8. Headcuts  | <mark>0</mark>      | 1                  | 2                | 3      |
| 9. Grade control                                     | 0                   | <mark>0.5</mark>   | 1                | 1.5    |
| 10. Natural valley                                   | 0                   | <mark>0.5</mark>   | 1                | 1.5    |
| 11. Second or greater order channel                  | Nc                  | <mark>o = 0</mark> | Yes              | = 3    |
| <sup>a</sup> artificial ditches are not rated.       |                     |                    |                  |        |
| B. Hydrology (Subtotal = _ 4)                        |                     |                    |                  |        |
| 12. Presence of Baseflow                             | 0                   | 1                  | 2                | 3      |
| 13. Iron oxidizing bacteria                          | 0                   | <mark>1</mark>     | 2                | 3      |
| 14. Leaf litter                                      | 1.5                 | 1                  | <mark>0.5</mark> | 0      |
| 15. Sediment on plants or debris                     | 0                   | <mark>0.5</mark>   | 1                | 1.5    |
| 16. Organic debris lines or piles                    | 0                   | 0.5                | 1                | 1.5    |
| 17. Soil-based evidence of high water table?         | <mark>No = 0</mark> |                    | Yes = 3          |        |
| C. Biology (Subtotal = <u>3.25</u> )                 |                     |                    |                  |        |
| 18. Fibrous roots in streambed                       | 3                   | 2                  | 1                | 0      |
| 19. Rooted upland plants in streambed                | 3                   | 2                  | 1                | 0      |
| 20. Macrobenthos (note diversity and abundance)      | 0                   | 1                  | 2                | 3      |
| 21. Aquatic Mollusks                                 | 0                   | 1                  | 2                | 3      |
| 22. Fish   | 0                   | 0.5                | 1                | 1.5    |
| 23. Crayfish   | 0                   | 0.5                | 1                | 1.5    |
|  |                     | 0.5                | 1                | 1.5    |
| 24. Amphibians                                       | 0                   | 0.0                | -                |        |
| 24. Amphibians<br>25. Algae                          | 0<br>0              | 0.5                | 1                | 1.5    |

Notes:

| Date: 02/23/2021   | Project/Site: Telesto Solar  | Latitude: 37.6817                 |
|--|--|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky  | Longitude: -85.95424              |
| Total Points:<br>Stream is at least intermittent 8.75: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br><mark>Ephemeral</mark> Intermittent Perennia <mark>l</mark> | Other Stream 3<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>2.5</u> )  | Absent           | Weak               | Moderate            | Strong |
|--|------------------|--------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                      | 0                | 1                  | 2                   | 3      |
| 2. Sinuosity of channel along thalweg  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence              | 0                | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate   | 0                | <mark>1</mark>     | 2                   | 3      |
| 5. Active/relict floodplain  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 6. Depositional bars or benches  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits  | 0                | 1                  | 2                   | 3      |
| 8. Headcuts  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 9. Grade control   | <mark>0</mark>   | 0.5                | 1                   | 1.5    |
| 10. Natural valley   | 0                | <mark>0.5</mark>   | 1                   | 1.5    |
| 11. Second or greater order channel  | N                | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology(Subtotal = <u>3.5</u> ) |                  |                    |                     |        |
| 12. Presence of Baseflow   | 0                | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 14. Leaf litter  | <mark>1.5</mark> | 1                  | 0.5                 | 0      |
| 15. Sediment on plants or debris   | 0                | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles  | 0                | <mark>0.5</mark>   | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3   |                    |                     |        |
| C. Biology (Subtotal = <u>2.75</u> )   |                  |                    |                     |        |
| 18. Fibrous roots in streambed   | 3                | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed  | 3                | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)  | <mark>0</mark>   | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks   | <mark>0</mark>   | 1                  | 2                   | 3      |
| 22. Fish   | 0                | 0.5                | 1                   | 1.5    |
| 23. Crayfish   | <mark>0</mark>   | 0.5                | 1                   | 1.5    |
| 24. Amphibians   | <mark>0</mark>   | 0.5                | 1                   | 1.5    |
| 25. Algae  | <mark>0</mark>   | 0.5                | 1                   | 1.5    |
| zo. Aigae  |                  |                    | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021  | Project/Site: Telesto Solar  | Latitude: 37.67875                |
|---|--|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky  | Longitude: -85.95848              |
| Total Points:<br>Stream is at least intermittent 33.75: Perennial if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent <mark>Perennial</mark> | Other Stream 4<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>20</u> )  | Absent         | Weak             | Moderate            | Strong           |
|---|----------------|------------------|---------------------|------------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0              | 1                | 2                   | 3                |
| 2. Sinuosity of channel along thalweg   | 0              | 1                | 2                   | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                | 2                   | 3                |
| 4. Particle size of stream substrate  | 0              | 1                | <mark>2</mark>      | 3                |
| 5. Active/relict floodplain   | 0              | <mark>1</mark>   | 2                   | 3                |
| 6. Depositional bars or benches   | 0              | 1                | 2                   | 3                |
| 7. Recent alluvial deposits   | 0              | 1                | 2                   | 3                |
| 8. Headcuts   | 0              | <mark>1</mark>   | 2                   | 3                |
| 9. Grade control  | 0              | 0.5              | 1                   | 1.5              |
| 10. Natural valley  | 0              | 0.5              | 1                   | 1.5              |
| 11. Second or greater order channel   | N              | o = 0            | Yes                 | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>8</u> ) |                |                  |                     |                  |
| 12. Presence of Baseflow  | 0              | 1                | 2                   | 3                |
| 13. Iron oxidizing bacteria   | 0              | <mark>1</mark>   | 2                   | 3                |
| 14. Leaf litter   | 1.5            | 1                | <mark>0.5</mark>    | 0                |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 16. Organic debris lines or piles   | 0              | 0.5              | 1                   | 1.5              |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                  |                     |                  |
| C. Biology (Subtotal = $5.75$ )   |                |                  |                     |                  |
| 18. Fibrous roots in streambed  | 3              | 2                | 1                   | 0                |
| 19. Rooted upland plants in streambed   | 3              | 2                | 1                   | 0                |
| 20. Macrobenthos (note diversity and abundance)                                       | 0              | 1                | 2                   | 3                |
| 21. Aquatic Mollusks  | 0              | 1                | 2                   | 3                |
| 22. Fish  | 0              | 0.5              | 1                   | 1.5              |
| 23. Crayfish  | 0              | 0.5              | 1                   | 1.5              |
| 24. Amphibians  | 0              | 0.5              | 1                   | 1.5              |
| 25. Algae   | 0              | 0.5              | 1                   | 1.5              |
| 26. Wetland plants in streambed   |                | FACW = 0.75;     | OBL = 1.5 Other = 0 | •                |
| Notes:  |                |                  |                     |                  |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.68174                |
|---|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.95861              |
| Total Points:<br>Stream is at least intermittent 11.75: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 5<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = 6)                      | Absent         | Weak               | Moderate         | Strong |
|--|----------------|--------------------|------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank    | 0              | <mark>1</mark>     | 2                | 3      |
| 2. Sinuosity of channel along thalweg                | 0              | 1                  | 2                | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, | 0              | 1                  | 2                | 3      |
| ripple-pool sequence                                 | -              |                    |                  | -      |
| 4. Particle size of stream substrate                 | 0              | <mark>1</mark>     | 2                | 3      |
| 5. Active/relict floodplain                          | <mark>0</mark> | 1                  | 2                | 3      |
| 6. Depositional bars or benches                      | <mark>0</mark> | 1                  | 2                | 3      |
| 7. Recent alluvial deposits                          | <mark>0</mark> | 1                  | 2                | 3      |
| 8. Headcuts  | 0              | <mark>1</mark>     | 2                | 3      |
| 9. Grade control                                     | 0              | <mark>0.5</mark>   | 1                | 1.5    |
| 10. Natural valley                                   | 0              | <mark>0.5</mark>   | 1                | 1.5    |
| 11. Second or greater order channel                  | Nc             | <mark>) = 0</mark> | Yes              | = 3    |
| <sup>a</sup> artificial ditches are not rated.       |                |                    |                  |        |
| B. Hydrology (Subtotal = <u>3</u> )                  |                |                    |                  |        |
| 12. Presence of Baseflow                             | 0              | 1                  | 2                | 3      |
| 13. Iron oxidizing bacteria                          | <mark>0</mark> | 1                  | 2                | 3      |
| 14. Leaf litter                                      | 1.5            | 1                  | <mark>0.5</mark> | 0      |
| 15. Sediment on plants or debris                     | 0              | <mark>0.5</mark>   | 1                | 1.5    |
| 16. Organic debris lines or piles                    | 0              | 0.5                | <mark>1</mark>   | 1.5    |
| 17. Soil-based evidence of high water table?         | No = 0         |                    | Yes = 3          |        |
| C. Biology (Subtotal = <u>2.75</u> )                 |                |                    | •                |        |
| 18. Fibrous roots in streambed                       | 3              | 2                  | <mark>1</mark>   | 0      |
| 19. Rooted upland plants in streambed                | 3              | 2                  | <mark>1</mark>   | 0      |
| 20. Macrobenthos (note diversity and abundance)      | <mark>0</mark> | 1                  | 2                | 3      |
| 21. Aquatic Mollusks                                 | <mark>0</mark> | 1                  | 2                | 3      |
| 22. Fish   | 0              | 0.5                | 1                | 1.5    |
| 23. Crayfish   | 0              | 0.5                | 1                | 1.5    |
| 24. Amphibians                                       | 0              | 0.5                | 1                | 1.5    |
|  |                |                    | 1                | 1.5    |
| 25. Algae  | <mark>0</mark> | 0.5                | I I              | 1.5    |

Notes:

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.6827                 |
|--|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.96141              |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 6<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>4</u> )   | Absent         | Weak                | Moderate            | Strong |
|---|----------------|---------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0              | 1                   | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | 0              | 1                   | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                   | 2                   | 3      |
| 4. Particle size of stream substrate  | <mark>0</mark> | 1                   | 2                   | 3      |
| 5. Active/relict floodplain   | <mark>0</mark> | 1                   | 2                   | 3      |
| 6. Depositional bars or benches   | 0              | 1                   | 2                   | 3      |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                   | 2                   | 3      |
| 8. Headcuts   | 0              | <mark>1</mark>      | 2                   | 3      |
| 9. Grade control  | 0              | <mark>0.5</mark>    | 1                   | 1.5    |
| 10. Natural valley  | <mark>0</mark> | <mark>0.5</mark>    | 1                   | 1.5    |
| 11. Second or greater order channel   | Nc             | <b>0</b> = <b>0</b> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>2</u> ) |                |                     |                     |        |
| 12. Presence of Baseflow  | <mark>0</mark> | 1                   | 2                   | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                   | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                   | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>    | 1                   | 1.5    |
| 16. Organic debris lines or piles   | 0              | 0.5                 | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                     |                     |        |
| C. Biology (Subtotal = <u>0</u> )   | ·              |                     |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                   | 1                   | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                   | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | 0              | 1                   | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                   | 2                   | 3      |
| 22. Fish  | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
|   |                |                     | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021  | Project/Site: Telesto Solar  | Latitude: 37.68606                |
|---|--|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky  | Longitude: -85.96134              |
| Total Points:<br>Stream is at least intermittent 19.25: Intermittent<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 7<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>13</u> )                                  | Absent         | Weak                | Moderate         | Strong |
|---|----------------|---------------------|------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                         | 0              | 1                   | 2                | 3      |
| 2. Sinuosity of channel along thalweg                                     | 0              | 1                   | 2                | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0              | 1                   | 2                | 3      |
| 4. Particle size of stream substrate                                      | 0              | 1                   | 2                | 3      |
| 5. Active/relict floodplain   | 0              | 1                   | 2                | 3      |
| 6. Depositional bars or benches   | 0              | 1                   | 2                | 3      |
| 7. Recent alluvial deposits   | 0              | 1                   | 2                | 3      |
| 8. Headcuts   | 0              | 1                   | 2                | 3      |
| 9. Grade control  | 0              | 0.5                 | 1                | 1.5    |
| 10. Natural valley  | 0              | 0.5                 | 1                | 1.5    |
| 11. Second or greater order channel                                       | No             | <b>0</b> = <b>0</b> | Yes              | = 3    |
| artificial ditches are not rated.   |                |                     |                  |        |
| B. Hydrology (Subtotal = <u>3.5</u> )                                     |                |                     |                  |        |
| 12. Presence of Baseflow  | 0              | 1                   | 2                | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                   | 2                | 3      |
| 14. Leaf litter   | 1.5            | 1                   | <mark>0.5</mark> | 0      |
| 15. Sediment on plants or debris  | 0              | 0.5                 | 1                | 1.5    |
| 16. Organic debris lines or piles   | 0              | <mark>0.5</mark>    | 1                | 1.5    |
| 17. Soil-based evidence of high water table?                              | No             | $\mathbf{p} = 0$    | Yes = 3          |        |
| C. Biology (Subtotal = <u>2.75</u> )                                      |                |                     |                  |        |
| 18. Fibrous roots in streambed  | 3              | 2                   | 1                | 0      |
| 19. Rooted upland plants in streambed                                     | 3              | 2                   | 1                | 0      |
| 20. Macrobenthos (note diversity and abundance)                           | 0              | 1                   | 2                | 3      |
| 21. Aquatic Mollusks  | 0              | 1                   | 2                | 3      |
| 22. Fish  | 0              | 0.5                 | 1                | 1.5    |
| 23. Crayfish  | 0              | 0.5                 | 1                | 1.5    |
| 24. Amphibians  | 0              | 0.5                 | 1                | 1.5    |
|   | 0              | 0.5                 | 1                | 1.5    |
| 25. Algae   | U U            | 0.5                 |                  |        |

Notes:

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68588                |
|--|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.96079              |
| Total Points:<br>Stream is at least intermittent 10.5: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 8<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = 6)  | Absent         | Weak               | Moderate       | Strong         |
|--|----------------|--------------------|----------------|----------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                     | 0              | 1                  | 2              | 3              |
| 2. Sinuosity of channel along thalweg  | 0              | 1                  | 2              | 3              |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence              | 0              | 1                  | 2              | 3              |
| 4. Particle size of stream substrate   | 0              | <mark>1</mark>     | 2              | 3              |
| 5. Active/relict floodplain  | 0              | 1                  | 2              | 3              |
| 6. Depositional bars or benches  | <mark>0</mark> | 1                  | 2              | 3              |
| 7. Recent alluvial deposits  | <mark>0</mark> | 1                  | 2              | 3              |
| 8. Headcuts  | 0              | <mark>1</mark>     | 2              | 3              |
| 9. Grade control   | 0              | <mark>0.5</mark>   | 1              | 1.5            |
| 10. Natural valley   | 0              | <mark>0.5</mark>   | 1              | 1.5            |
| 11. Second or greater order channel  | N              | <mark>o = 0</mark> | Yes            | = 3            |
| <sup>°</sup> artificial ditches are not rated.<br>B. Hydrology(Subtotal = <u>2.5</u> ) |                |                    |                |                |
| 12. Presence of Baseflow   | 0              | <mark>1</mark>     | 2              | 3              |
| 13. Iron oxidizing bacteria  | <mark>0</mark> | 1                  | 2              | 3              |
| 14. Leaf litter  | 1.5            | 1                  | 0.5            | <mark>0</mark> |
| 15. Sediment on plants or debris   | 0              | 0.5                | <mark>1</mark> | 1.5            |
| 16. Organic debris lines or piles  | 0              | <mark>0.5</mark>   | 1              | 1.5            |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3 |                    |                | = 3            |
| C. Biology (Subtotal = <u>2</u> )  |                |                    | ·              |                |
| 18. Fibrous roots in streambed   | 3              | 2                  | <mark>1</mark> | 0              |
| 19. Rooted upland plants in streambed  | 3              | 2                  | <mark>1</mark> | 0              |
| 20. Macrobenthos (note diversity and abundance)  | 0              | 1                  | 2              | 3              |
| 21. Aquatic Mollusks   | <mark>0</mark> | 1                  | 2              | 3              |
| 22. Fish   | 0              | 0.5                | 1              | 1.5            |
| 23. Crayfish   | <mark>0</mark> | 0.5                | 1              | 1.5            |
| 24. Amphibians   | 0              | 0.5                | 1              | 1.5            |
|  |                | 0.5                | 1              | 1.5            |
| 25. Algae  | <mark>0</mark> | 0.5                |                | 1.0            |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68602                |
|--|---|-----------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.96156              |
| Total Points:<br>Stream is at least intermittent 7.5: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 9<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>3.5</u> )   | Absent         | Weak             | Moderate            | Strong         |
|---|----------------|------------------|---------------------|----------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0              | 1                | 2                   | 3              |
| 2. Sinuosity of channel along thalweg   | 0              | 1                | 2                   | 3              |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                | 2                   | 3              |
| 4. Particle size of stream substrate  | <mark>0</mark> | 1                | 2                   | 3              |
| 5. Active/relict floodplain   | 0              | 1                | 2                   | 3              |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                | 2                   | 3              |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                | 2                   | 3              |
| 8. Headcuts   | 0              | 1                | 2                   | 3              |
| 9. Grade control  | <mark>0</mark> | 0.5              | 1                   | 1.5            |
| 10. Natural valley  | 0              | <mark>0.5</mark> | 1                   | 1.5            |
| 11. Second or greater order channel   | N              | o = 0            | Yes                 | = 3            |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>2</u> ) |                |                  |                     |                |
| 12. Presence of Baseflow  | O              | 1                | 2                   | 3              |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                | 2                   | 3              |
| 14. Leaf litter   | 1.5            | 1                | 0.5                 | <mark>0</mark> |
| 15. Sediment on plants or debris  | 0              | 0.5              | 1                   | 1.5            |
| 16. Organic debris lines or piles   | 0              | 0.5              | 1                   | 1.5            |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                  |                     | = 3            |
| C. Biology (Subtotal = $2$ )  |                |                  |                     |                |
| 18. Fibrous roots in streambed  | 3              | 2                | <mark>1</mark>      | 0              |
| 19. Rooted upland plants in streambed   | 3              | 2                | 1                   | 0              |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark> | 1                | 2                   | 3              |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                | 2                   | 3              |
| 22. Fish  | <mark>0</mark> | 0.5              | 1                   | 1.5            |
| 23. Crayfish  | <mark>0</mark> | 0.5              | 1                   | 1.5            |
| 24. Amphibians  | <mark>0</mark> | 0.5              | 1                   | 1.5            |
| 25. Algae   | <mark>0</mark> | 0.5              | 1                   | 1.5            |
|   |                |                  | OBL = 1.5 Other = 0 |                |

| Date: 02/23/2021   | Project/Site: Telesto Solar  | Latitude: 37.6886                  |
|--|--|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky  | Longitude: -85.96121               |
| Total Points:<br>Stream is at least intermittent $30.75$ : Perennial if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent <mark>Perennial</mark> | Other Stream 10<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>17</u> )  | Absent  | Weak  | Moderate  | Strong  |
|---|---|---|---|---|
| 1 <sup>a.</sup> Continuity of channel bed and bank  | 0   | 1   | 2   | 3   |
| 2. Sinuosity of channel along thalweg   | 0   | 1   | 2   | 3   |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence   | 0   | 1   | 2   | 3   |
| 4. Particle size of stream substrate  | 0   | 1   | <mark>2</mark>  | 3   |
| 5. Active/relict floodplain   | 0   | 1   | 2   | 3   |
| 6. Depositional bars or benches   | 0   | 1   | 2   | 3   |
| 7. Recent alluvial deposits   | 0   | 1   | 2   | 3   |
| 8. Headcuts   | 0   | <mark>1</mark>  | 2   | 3   |
| 9. Grade control  | 0   | 0.5   | <mark>1</mark>  | 1.5   |
| 10. Natural valley  | 0   | 0.5   | 1   | 1.5   |
| 11. Second or greater order channel   | N   | 0 = 0   | Yes   | <mark>= 3</mark>  |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>7</u> )   |   |   |   |   |
| 12. Presence of Baseflow  | 0   | 1   | 2   | 3   |
| 13. Iron oxidizing bacteria   | 0   | 1   | 2   | 3   |
|   | ✓   |   | <u> </u>  | Ũ   |
| 14. Leaf litter   | 1.5   |   | 0.5   | 0   |
|   | -   |   | _   | -   |
| 14. Leaf litter<br>15. Sediment on plants or debris   | 1.5   | 1   | 0.5   | 0   |
| 14. Leaf litter   | 1.5<br>0<br>0   | <mark>1</mark><br>0.5   | 0.5   | 0<br>1.5<br>1.5   |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> </ul>  | 1.5<br>0<br>0   | <mark>1</mark><br>0.5<br>0.5  | 0.5<br>1<br>1   | 0<br>1.5<br>1.5   |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>6.75</u>)</li> </ul>   | 1.5<br>0<br>0   | <mark>1</mark><br>0.5<br>0.5  | 0.5<br>1<br>1   | 0<br>1.5<br>1.5   |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = 6.75)</li> <li>18. Fibrous roots in streambed</li> </ul>  | 1.5<br>0<br>0<br>N                                    | <mark>1</mark><br>0.5<br>0.5<br>o = 0   | 0.5<br>1<br>1<br>Yes  | 0<br>1.5<br>1.5<br>= 3  |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>6.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> </ul>  | 1.5<br>0<br>0<br>N                                    | 1<br>0.5<br>0.5<br>0 = 0<br>2   | 0.5<br>1<br>1<br>Yes  | 0<br>1.5<br>1.5<br>= 3  |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>6.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> </ul>   | 1.5<br>0<br>0<br>N<br>3<br>3                          | 1<br>0.5<br>0.5<br>0 = 0<br>2<br>2  | 0.5<br>1<br>1<br>Yes<br>1<br>1<br>1   | 0<br>1.5<br>1.5<br>= 3<br>0<br>0                                |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = 6.75)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> </ul>  | 1.5<br>0<br>0<br>N<br>3<br>3<br>0                     | 1           0.5           0.5           0 = 0           2           2           1   | 0.5<br>1<br>1<br>Yes<br>1<br>1<br>2   | 0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>3                           |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = 6.75)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> </ul>                              | 1.5<br>0<br>0<br>N<br>3<br>3<br>0<br>0                | 1           0.5           0.5           0 = 0           2           2           1           1   | 0.5<br>1<br>1<br>Yes<br>1<br>1<br>2<br>2  | 0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>0<br>3<br>3<br>3            |
| <ul><li>14. Leaf litter</li><li>15. Sediment on plants or debris</li><li>16. Organic debris lines or piles</li></ul>  | 1.5<br>0<br>0<br>N<br>0<br>N<br>0<br>0<br>0<br>0      | $     \begin{array}{r}       1 \\       0.5 \\       0.5 \\       0 = 0 \\       2 \\       2 \\       1 \\       1 \\       0.5 \\       \end{array} $                         | 0.5<br>1<br>1<br>Yes<br>1<br>1<br>2<br>2<br>1   | 0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>0<br>3<br>3<br>1.5          |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>6.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> <li>23. Crayfish</li> </ul> | 1.5<br>0<br>0<br>0<br>N<br>0<br>0<br>0<br>0<br>0<br>0 | $     \begin{array}{r}       1 \\       0.5 \\       0.5 \\       0 = 0 \\       2 \\       2 \\       1 \\       1 \\       0.5 \\       0.5 \\       0.5 \\     \end{array} $ | 0.5<br>1<br>1<br>Yes<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>0<br>3<br>1.5<br>1.5<br>1.5 |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68897                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.96098               |
| Total Points:<br>Stream is at least intermittent 7.25: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 11<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>2.5</u> )  | Absent         | Weak             | Moderate            | Strong           |
|--|----------------|------------------|---------------------|------------------|
| 1 <sup>a</sup> Continuity of channel bed and bank  | 0              | <mark>1</mark>   | 2                   | 3                |
| 2. Sinuosity of channel along thalweg  | 0              | 1                | 2                   | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence  | 0              | 1                | 2                   | 3                |
| 4. Particle size of stream substrate   | <mark>0</mark> | 1                | 2                   | 3                |
| 5. Active/relict floodplain  | <mark>0</mark> | 1                | 2                   | 3                |
| 6. Depositional bars or benches  | <mark>0</mark> | 1                | 2                   | 3                |
| 7. Recent alluvial deposits  | 0              | 1                | 2                   | 3                |
| 8. Headcuts  | 0              | 1                | 2                   | 3                |
| 9. Grade control   | 0              | 0.5              | 1                   | 1.5              |
| 10. Natural valley   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 11. Second or greater order channel<br><sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>2</u> ) | N              | o = 0            | Yes                 | = 3              |
| 12. Presence of Baseflow   | 0              | 1                | 2                   | 3                |
| 13. Iron oxidizing bacteria  | 0              | 1                | 2                   | 3                |
| 14. Leaf litter  | 1.5            | 1                | 0.5                 | <mark>0</mark>   |
| 15. Sediment on plants or debris   | 0              | 0.5              | 1                   | <mark>1.5</mark> |
| 16. Organic debris lines or piles  | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3 |                  |                     | = 3              |
| C. Biology (Subtotal = <u>2.75</u> )   |                |                  |                     |                  |
| 18. Fibrous roots in streambed   | 3              | 2                | 1                   | 0                |
| 19. Rooted upland plants in streambed  | 3              | 2                | <mark>1</mark>      | 0                |
| 20. Macrobenthos (note diversity and abundance)  | <mark>0</mark> | 1                | 2                   | 3                |
| 21. Aquatic Mollusks   | 0              | 1                | 2                   | 3                |
| 22. Fish   | 0              | 0.5              | 1                   | 1.5              |
| 23. Crayfish   | 0              | 0.5              | 1                   | 1.5              |
| 24. Amphibians   | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 25. Algae  | 0              | 0.5              | 1                   | 1.5              |
| 26. Wetland plants in streambed  |                | FACW = 0.75      | OBL = 1.5 Other = 0 |                  |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.68688                 |
|---|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.96003               |
| Total Points:<br>Stream is at least intermittent 5.5: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 12<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>2.5</u> )   | Absent         | Weak               | Moderate            | Strong |
|---|----------------|--------------------|---------------------|--------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0              | 1                  | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | 0              | 1                  | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate  | <mark>0</mark> | 1                  | 2                   | 3      |
| 5. Active/relict floodplain   | 0              | 1                  | 2                   | 3      |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                  | 2                   | 3      |
| 8. Headcuts   | 0              | 1                  | 2                   | 3      |
| 9. Grade control  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 10. Natural valley  | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 11. Second or greater order channel   | N              | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>1</u> ) |                |                    |                     |        |
| 12. Presence of Baseflow  | O              | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                  | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles   | 0              | 0.5                | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                    |                     | = 3    |
| C. Biology (Subtotal = _ 2 _)   |                |                    |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark> | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                  | 2                   | 3      |
| 22. Fish  | 0              | 0.5                | 1                   | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 20.7 "gao   |                |                    | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.67946                 |
|---|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.97282               |
| Total Points:<br>Stream is at least intermittent 17.25: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 13<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>11</u> )             | Absent         | Weak               | Moderate         | Strong |
|--|----------------|--------------------|------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank    | 0              | <mark>1</mark>     | 2                | 3      |
| 2. Sinuosity of channel along thalweg                | 0              | 1                  | 2                | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, | 0              | 1                  | 2                | 3      |
| ripple-pool sequence                                 | 0              | <b>1</b>           |                  |        |
| 4. Particle size of stream substrate                 | 0              | 1                  | <mark>2</mark>   | 3      |
| 5. Active/relict floodplain                          | 0              | <mark>1</mark>     | 2                | 3      |
| 6. Depositional bars or benches                      | 0              | <mark>1</mark>     | 2                | 3      |
| 7. Recent alluvial deposits                          | 0              | <mark>1</mark>     | 2                | 3      |
| 8. Headcuts  | 0              | <mark>1</mark>     | 2                | 3      |
| 9. Grade control                                     | 0              | 0.5                | <mark>1</mark>   | 1.5    |
| 10. Natural valley                                   | 0              | 0.5                | <mark>1</mark>   | 1.5    |
| 11. Second or greater order channel                  | Nc             | <mark>) = 0</mark> | Yes              | = 3    |
| <sup>a</sup> artificial ditches are not rated.       |                |                    |                  |        |
| B. Hydrology (Subtotal = <u>2.5</u> )                |                |                    |                  |        |
| 12. Presence of Baseflow                             | 0              | <mark>1</mark>     | 2                | 3      |
| 13. Iron oxidizing bacteria                          | <mark>0</mark> | 1                  | 2                | 3      |
| 14. Leaf litter                                      | 1.5            | 1                  | <mark>0.5</mark> | 0      |
| 15. Sediment on plants or debris                     | 0              | <mark>0.5</mark>   | 1                | 1.5    |
| 16. Organic debris lines or piles                    | 0              | <mark>0.5</mark>   | 1                | 1.5    |
| 17. Soil-based evidence of high water table?         | No = 0         |                    | Yes = 3          |        |
| C. Biology (Subtotal = <u>3.75</u> )                 |                |                    | ·                |        |
| 18. Fibrous roots in streambed                       | 3              | 2                  | <mark>1</mark>   | 0      |
| 19. Rooted upland plants in streambed                | 3              | 2                  | 1                | 0      |
| 20. Macrobenthos (note diversity and abundance)      | <mark>0</mark> | 1                  | 2                | 3      |
| 21. Aquatic Mollusks                                 | 0              | 1                  | 2                | 3      |
| 22. Fish   | 0              | 0.5                | 1                | 1.5    |
| 23. Crayfish   | 0              | 0.5                | 1                | 1.5    |
| 24. Amphibians                                       | 0              | 0.5                | 1                | 1.5    |
| 25. Algae  | 0              | 0.5                | 1                | 1.5    |
| 25. Algae  |                |                    |                  |        |

Notes:

| Date: 02/23/2021  | Project/Site: Telesto Solar  | Latitude: 37.6792                  |
|---|--|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky  | Longitude: -85.97234               |
| Total Points:<br>Stream is at least intermittent 44: Perennial<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent <mark>Perennial</mark> | Other Stream 14<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>27</u> )   | Absent         | Weak             | Moderate            | Strong           |
|--|----------------|------------------|---------------------|------------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank   | 0              | 1                | 2                   | <mark>3</mark>   |
| 2. Sinuosity of channel along thalweg  | 0              | 1                | 2                   | <mark>3</mark>   |
| <ol> <li>In-channel structure: ex. riffle-pool, step-pool,<br/>ripple-pool sequence</li> </ol> | 0              | 1                | 2                   | <mark>3</mark>   |
| 4. Particle size of stream substrate   | 0              | 1                | 2                   | <mark>3</mark>   |
| 5. Active/relict floodplain  | 0              | 1                | 2                   | <mark>3</mark>   |
| 6. Depositional bars or benches  | 0              | 1                | 2                   | <mark>3</mark>   |
| 7. Recent alluvial deposits  | 0              | 1                | 2                   | <mark>3</mark>   |
| 8. Headcuts  | 0              | <mark>1</mark>   | 2                   | 3                |
| 9. Grade control   | 0              | 0.5              | <mark>1</mark>      | 1.5              |
| 10. Natural valley   | 0              | 0.5              | <mark>1</mark>      | 1.5              |
| 11. Second or greater order channel  | N              | o = 0            | Yes                 | <mark>= 3</mark> |
| artificial ditches are not rated.  | ·              |                  |                     |                  |
| B. Hydrology(Subtotal = <u>10</u> )  |                |                  |                     |                  |
| 12. Presence of Baseflow   | 0              | 1                | 2                   | <mark>3</mark>   |
| 13. Iron oxidizing bacteria  | 0              | 1                | 2                   | 3                |
| 14. Leaf litter  | 1.5            | 1                | <mark>0.5</mark>    | 0                |
| 15. Sediment on plants or debris   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 16. Organic debris lines or piles  | 0              | 0.5              | <mark>1</mark>      | 1.5              |
| 17. Soil-based evidence of high water table?   | No = 0         |                  | Yes = 3             |                  |
| C. Biology (Subtotal = <u>7</u> )  |                |                  | •                   |                  |
| 18. Fibrous roots in streambed   | <mark>3</mark> | 2                | 1                   | 0                |
| 19. Rooted upland plants in streambed  | <mark>3</mark> | 2                | 1                   | 0                |
| 20. Macrobenthos (note diversity and abundance)  | <mark>0</mark> | 1                | 2                   | 3                |
| 21. Aquatic Mollusks   | <mark>0</mark> | 1                | 2                   | 3                |
| 22. Fish   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 23. Crayfish   | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 24. Amphibians   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 25. Algae  | 0              | 0.5              | 1                   | 1.5              |
| 26. Wetland plants in streambed  |                | FACW = 0.75:     | OBL = 1.5 Other = 0 |                  |

Notes:

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68229                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.97114               |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if ≥ 19 or perennial if ≥ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 15<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>3.5</u> )   | Absent         | Weak               | Moderate            | Strong         |
|---|----------------|--------------------|---------------------|----------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0              | <mark>1</mark>     | 2                   | 3              |
| 2. Sinuosity of channel along thalweg   | 0              | <mark>1</mark>     | 2                   | 3              |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                  | 2                   | 3              |
| 4. Particle size of stream substrate  | 0              | 1                  | 2                   | 3              |
| 5. Active/relict floodplain   | 0              | <mark>1</mark>     | 2                   | 3              |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                  | 2                   | 3              |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                  | 2                   | 3              |
| 8. Headcuts   | <mark>0</mark> | 1                  | 2                   | 3              |
| 9. Grade control  | 0              | <mark>0.5</mark>   | 1                   | 1.5            |
| 10. Natural valley  | <mark>0</mark> | 0.5                | 1                   | 1.5            |
| 11. Second or greater order channel   | N              | <mark>o = 0</mark> | Yes                 | = 3            |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>1</u> ) |                |                    |                     |                |
| 12. Presence of Baseflow  | O              | 1                  | 2                   | 3              |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                  | 2                   | 3              |
| 14. Leaf litter   | 1.5            | 1                  | 0.5                 | <mark>0</mark> |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>   | 1                   | 1.5            |
| 16. Organic debris lines or piles   | 0              | <mark>0.5</mark>   | 1                   | 1.5            |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                    |                     |                |
| C. Biology (Subtotal = <u>2</u> )   |                |                    | •                   |                |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1                   | 0              |
| 19. Rooted upland plants in streambed   | 3              | 2                  | 1                   | 0              |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark> | 1                  | 2                   | 3              |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                  | 2                   | 3              |
| 22. Fish  | <mark>0</mark> | 0.5                | 1                   | 1.5            |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1                   | 1.5            |
| 24. Amphibians  | 0              | 0.5                | 1                   | 1.5            |
| 25. Algae   | <mark>0</mark> | 0.5                | 1                   | 1.5            |
| 26. Wetland plants in streambed   |                |                    | OBL = 1.5 Other = 0 |                |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.68241                 |
|---|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.97061               |
| Total Points:<br>Stream is at least intermittent 13: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 16<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>7</u> )  | Absent         | Weak               | Moderate            | Strong |
|--|----------------|--------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                    | 0              | 1                  | 2                   | 3      |
| 2. Sinuosity of channel along thalweg  | 0              | 1                  | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence            | 0              | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate   | 0              | 1                  | 2                   | 3      |
| 5. Active/relict floodplain  | <mark>0</mark> | 1                  | 2                   | 3      |
| 6. Depositional bars or benches  | <mark>0</mark> | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits  | <mark>0</mark> | 1                  | 2                   | 3      |
| 3. Headcuts  | <mark>0</mark> | 1                  | 2                   | 3      |
| 9. Grade control   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 10. Natural valley   | 0              | 0.5                | <mark>1</mark>      | 1.5    |
| 11. Second or greater order channel  | N              | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology(Subtotal = <u>4</u> ) |                |                    |                     |        |
| 12. Presence of Baseflow   | 0              | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria  | 0              | <mark>1</mark>     | 2                   | 3      |
| 14. Leaf litter  | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris   | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3 |                    |                     | = 3    |
| C. Biology (Subtotal = <u>2</u> )  |                |                    | •                   |        |
| 18. Fibrous roots in streambed   | 3              | 2                  | <mark>1</mark>      | 0      |
| 19. Rooted upland plants in streambed  | 3              | 2                  | <mark>1</mark>      | 0      |
| 20. Macrobenthos (note diversity and abundance)                                      | <mark>0</mark> | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks   | <mark>0</mark> | 1                  | 2                   | 3      |
| 22. Fish   | 0              | 0.5                | 1                   | 1.5    |
| 23. Crayfish   | 0              | 0.5                | 1                   | 1.5    |
| 24. Amphibians   | 0              | 0.5                | 1                   | 1.5    |
| 25. Algae  | 0              | 0.5                | 1                   | 1.5    |
| 26. Wetland plants in streambed  |                | FACW = 0.75        | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude:                          |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -                       |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 17<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>3</u> )  | Absent         | Weak               | Moderate            | Strong |
|--|----------------|--------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank  | 0              | <mark>1</mark>     | 2                   | 3      |
| 2. Sinuosity of channel along thalweg  | 0              | <mark>1</mark>     | 2                   | 3      |
| <ol> <li>In-channel structure: ex. riffle-pool, step-pool,<br/>ripple-pool sequence</li> </ol> | 0              | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate   | <mark>0</mark> | 1                  | 2                   | 3      |
| 5. Active/relict floodplain  | <mark>0</mark> | 1                  | 2                   | 3      |
| 6. Depositional bars or benches  | <mark>0</mark> | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits  | <mark>0</mark> | 1                  | 2                   | 3      |
| 8. Headcuts  | <mark>0</mark> | 1                  | 2                   | 3      |
| 9. Grade control   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 10. Natural valley   | 0              | 0.5                | 1                   | 1.5    |
| 11. Second or greater order channel  | N              | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology(Subtotal = <u>1</u> )           |                |                    |                     |        |
| 12. Presence of Baseflow   | O              | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria  | <mark>0</mark> | 1                  | 2                   | 3      |
| 14. Leaf litter  | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris   | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?   | No = 0 Yes = 3 |                    |                     |        |
| C. Biology (Subtotal = <u>2</u> )  |                |                    |                     |        |
| 18. Fibrous roots in streambed   | 3              | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed  | 3              | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)  | <mark>0</mark> | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks   | 0              | 1                  | 2                   | 3      |
| 22. Fish   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 23. Crayfish   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 24. Amphibians   | 0              | 0.5                | 1                   | 1.5    |
| 25. Algae  | 0              | 0.5                | 1                   | 1.5    |
| 26. Wetland plants in streambed  |                |                    | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68865                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.93871               |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if ≥ 19 or perennial if ≥ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 18<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>3</u> )   | Absent         | Weak                | Moderate            | Strong |
|---|----------------|---------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0              | <mark>1</mark>      | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | 0              | 1                   | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                   | 2                   | 3      |
| 4. Particle size of stream substrate  | <mark>0</mark> | 1                   | 2                   | 3      |
| 5. Active/relict floodplain   | 0              | 1                   | 2                   | 3      |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                   | 2                   | 3      |
| 7. Recent alluvial deposits   | 0              | 1                   | 2                   | 3      |
| 8. Headcuts   | 0              | 1                   | 2                   | 3      |
| 9. Grade control  | 0              | 0.5                 | 1                   | 1.5    |
| 10. Natural valley  | 0              | 0.5                 | 1                   | 1.5    |
| 11. Second or greater order channel   | N              | <mark>lo = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>1</u> ) |                |                     |                     |        |
| 12. Presence of Baseflow  | 0              | 1                   | 2                   | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                   | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                   | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>    | 1                   | 1.5    |
| 16. Organic debris lines or piles   | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | No = 0 Yes = 3 |                     |                     |        |
| C. Biology (Subtotal = <u>2</u> )   |                |                     |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                   | <mark>1</mark>      | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                   | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | 0              | 1                   | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                   | 2                   | 3      |
| 22. Fish  | 0              | 0.5                 | 1                   | 1.5    |
| 23. Crayfish  | 0              | 0.5                 | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                 | 1                   | 1.5    |
| 26. Wetland plants in streambed   |                | FACW = 0.75         | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar  | Latitude: 37.6924                  |
|--|--|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky  | Longitude: -85.93264               |
| Total Points:<br>Stream is at least intermittent 28.25: Intermittent if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 19<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>16.5</u> )  | Absent         | Weak             | Moderate            | Strong           |
|---|----------------|------------------|---------------------|------------------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0              | 1                | 2                   | 3                |
| 2. Sinuosity of channel along thalweg   | 0              | 1                | 2                   | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                | 2                   | 3                |
| 4. Particle size of stream substrate  | 0              | <mark>1</mark>   | 2                   | 3                |
| 5. Active/relict floodplain   | 0              | <mark>1</mark>   | 2                   | 3                |
| 6. Depositional bars or benches   | 0              | <mark>1</mark>   | 2                   | 3                |
| 7. Recent alluvial deposits   | 0              | <mark>1</mark>   | 2                   | 3                |
| 8. Headcuts   | 0              | 1                | 2                   | 3                |
| 9. Grade control  | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 10. Natural valley  | 0              | 0.5              | 1                   | 1.5              |
| 11. Second or greater order channel   | No             | o = 0            | Yes                 | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>7</u> ) |                |                  |                     |                  |
| 12. Presence of Baseflow  | 0              | <mark>1</mark>   | 2                   | 3                |
| 13. Iron oxidizing bacteria   | 0              | 1                | 2                   | 3                |
| 14. Leaf litter   | 1.5            | 1                | <mark>0.5</mark>    | 0                |
| 15. Sediment on plants or debris  | 0              | 0.5              | 1                   | 1.5              |
| 16. Organic debris lines or piles   | 0              | <mark>0.5</mark> | 1                   | 1.5              |
| 17. Soil-based evidence of high water table?  | No             | 0 = 0            | Yes                 | <mark>= 3</mark> |
| C. Biology (Subtotal = $4.75$ )   |                |                  |                     |                  |
| 18. Fibrous roots in streambed  | 3              | <mark>2</mark>   | 1                   | 0                |
| 19. Rooted upland plants in streambed   | 3              | <mark>2</mark>   | 1                   | 0                |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark> | 1                | 2                   | 3                |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                | 2                   | 3                |
| 22. Fish  | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 23. Crayfish  | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 24. Amphibians  | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 25. Algae   | <mark>0</mark> | 0.5              | 1                   | 1.5              |
| 26. Wetland plants in streambed   |                | EACW = 0.75      | OBL = 1.5 Other = 0 |                  |

| Date: 02/23/2021  | Project/Site: Telesto Solar   | Latitude: 37.68999                 |
|---|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann  | County: Hardin County, Kentucky                                       | Longitude: -85.93458               |
| Total Points:<br>Stream is at least intermittent 16.25: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 20<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>9.5</u> )   | Absent         | Weak               | Moderate            | Strong |
|---|----------------|--------------------|---------------------|--------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0              | <mark>1</mark>     | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | 0              | <mark>1</mark>     | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0              | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate  | 0              | <mark>1</mark>     | 2                   | 3      |
| 5. Active/relict floodplain   | 0              | <mark>1</mark>     | 2                   | 3      |
| 6. Depositional bars or benches   | 0              | <mark>1</mark>     | 2                   | 3      |
| 7. Recent alluvial deposits   | 0              | <mark>1</mark>     | 2                   | 3      |
| 8. Headcuts   | 0              | <mark>1</mark>     | 2                   | 3      |
| 9. Grade control  | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 10. Natural valley  | 0              | 0.5                | <mark>1</mark>      | 1.5    |
| 11. Second or greater order channel   | N              | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>4</u> ) |                |                    |                     |        |
| 12. Presence of Baseflow  | 0              | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria   | 0              | <mark>1</mark>     | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | 0.5                | 1                   | 1.5    |
| 16. Organic debris lines or piles   | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | N              | <mark>o = 0</mark> | Yes                 | = 3    |
| C. Biology (Subtotal = <u>2.75</u> )  |                |                    |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark> | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                  | 2                   | 3      |
| 22. Fish  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 26. Wetland plants in streambed   |                | FACW = 0.75        | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68796                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.94322               |
| Total Points:<br>Stream is at least intermittent 18.75: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 21<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>11.5</u> )                                | Absent         | Weak               | Moderate       | Strong |
|---|----------------|--------------------|----------------|--------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                        | 0              | 1                  | 2              | 3      |
| 2. Sinuosity of channel along thalweg                                     | 0              | 1                  | 2              | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0              | 1                  | 2              | 3      |
| 4. Particle size of stream substrate                                      | 0              | <mark>1</mark>     | 2              | 3      |
| 5. Active/relict floodplain   | 0              | <mark>1</mark>     | 2              | 3      |
| 6. Depositional bars or benches   | 0              | <mark>1</mark>     | 2              | 3      |
| 7. Recent alluvial deposits   | 0              | <mark>1</mark>     | 2              | 3      |
| 8. Headcuts   | 0              | <mark>1</mark>     | 2              | 3      |
| 9. Grade control  | 0              | <mark>0.5</mark>   | 1              | 1.5    |
| 10. Natural valley  | 0              | 0.5                | <mark>1</mark> | 1.5    |
| 11. Second or greater order channel                                       | Nc             | <mark>) = 0</mark> | Yes            | = 3    |
| <sup>a</sup> artificial ditches are not rated.                            |                |                    |                |        |
| B. Hydrology (Subtotal = <u>4.5</u> )                                     |                |                    |                |        |
| 12. Presence of Baseflow  | 0              | 1                  | 2              | 3      |
| 13. Iron oxidizing bacteria   | 0              | <mark>1</mark>     | 2              | 3      |
| 14. Leaf litter   | 1.5            | <mark>1</mark>     | 0.5            | 0      |
| 15. Sediment on plants or debris  | 0              | 0.5                | <mark>1</mark> | 1.5    |
| 16. Organic debris lines or piles   | 0              | <mark>0.5</mark>   | 1              | 1.5    |
| 17. Soil-based evidence of high water table?                              | No             | <mark>) = 0</mark> | Yes            | = 3    |
| C. Biology (Subtotal = $2.75$ )   | ·              |                    |                |        |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1              | 0      |
| 19. Rooted upland plants in streambed                                     | 3              | 2                  | 1              | 0      |
| 20. Macrobenthos (note diversity and abundance)                           | 0              | 1                  | 2              | 3      |
| 21. Aquatic Mollusks  | 0              | 1                  | 2              | 3      |
| 22. Fish  | 0              | 0.5                | 1              | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1              | 1.5    |
| 24. Amphibians  | 0              | 0.5                | 1              | 1.5    |
|   | 0              | 0.5                | 1              | 1.5    |
| 25. Algae   | ✓              | 0.0                |                |        |

Notes:

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.68892                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.94474               |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 22<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = _ 2 _)   | Absent         | Weak               | Moderate            | Strong |
|---|----------------|--------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0              | <mark>1</mark>     | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | <mark>0</mark> | 1                  | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | <mark>0</mark> | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate  | 0              | <mark>1</mark>     | 2                   | 3      |
| 5. Active/relict floodplain   | <mark>0</mark> | 1                  | 2                   | 3      |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                  | 2                   | 3      |
| 8. Headcuts   | <mark>0</mark> | 1                  | 2                   | 3      |
| 9. Grade control  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 10. Natural valley  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 11. Second or greater order channel   | No             | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>2</u> ) |                |                    |                     |        |
| 12. Presence of Baseflow  | <mark>0</mark> | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                  | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles   | 0              | 0.5                | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | No             | <mark>o = 0</mark> | Yes                 | = 3    |
| C. Biology (Subtotal = <u>2</u> )   |                |                    |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | 0              | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                  | 2                   | 3      |
| 22. Fish  | 0              | 0.5                | 1                   | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 26. Wetland plants in streambed   |                | FACW = 0.75:       | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.69026                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.94987               |
| Total Points:<br>Stream is at least intermittent 6: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 23<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = _ 2 _)   | Absent         | Weak               | Moderate            | Strong |
|---|----------------|--------------------|---------------------|--------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0              | <mark>1</mark>     | 2                   | 3      |
| 2. Sinuosity of channel along thalweg   | <mark>0</mark> | 1                  | 2                   | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | <mark>0</mark> | 1                  | 2                   | 3      |
| 4. Particle size of stream substrate  | 0              | <mark>1</mark>     | 2                   | 3      |
| 5. Active/relict floodplain   | <mark>0</mark> | 1                  | 2                   | 3      |
| 6. Depositional bars or benches   | <mark>0</mark> | 1                  | 2                   | 3      |
| 7. Recent alluvial deposits   | <mark>0</mark> | 1                  | 2                   | 3      |
| 8. Headcuts   | <mark>0</mark> | 1                  | 2                   | 3      |
| 9. Grade control  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 10. Natural valley  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 11. Second or greater order channel   | No             | <mark>o = 0</mark> | Yes                 | = 3    |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>2</u> ) |                |                    |                     |        |
| 12. Presence of Baseflow  | <mark>0</mark> | 1                  | 2                   | 3      |
| 13. Iron oxidizing bacteria   | <mark>0</mark> | 1                  | 2                   | 3      |
| 14. Leaf litter   | 1.5            | 1                  | <mark>0.5</mark>    | 0      |
| 15. Sediment on plants or debris  | 0              | <mark>0.5</mark>   | 1                   | 1.5    |
| 16. Organic debris lines or piles   | 0              | 0.5                | 1                   | 1.5    |
| 17. Soil-based evidence of high water table?  | No             | <mark>o = 0</mark> | Yes                 | = 3    |
| C. Biology (Subtotal = <u>2</u> )   |                |                    |                     |        |
| 18. Fibrous roots in streambed  | 3              | 2                  | 1                   | 0      |
| 19. Rooted upland plants in streambed   | 3              | 2                  | 1                   | 0      |
| 20. Macrobenthos (note diversity and abundance)                                       | 0              | 1                  | 2                   | 3      |
| 21. Aquatic Mollusks  | <mark>0</mark> | 1                  | 2                   | 3      |
| 22. Fish  | 0              | 0.5                | 1                   | 1.5    |
| 23. Crayfish  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 24. Amphibians  | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 25. Algae   | <mark>0</mark> | 0.5                | 1                   | 1.5    |
| 26. Wetland plants in streambed   |                | FACW = 0.75:       | OBL = 1.5 Other = 0 |        |

| Date: 02/23/2021   | Project/Site: Telesto Solar   | Latitude: 37.69566                 |
|--|---|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky                                       | Longitude: -85.95542               |
| Total Points:<br>Stream is at least intermittent 7: Ephemeral<br>if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 24<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>3.5</u> )   | Absent   | Weak   | Moderate   | Strong  |
|---|--|--|--|---|
| 1 <sup>a.</sup> Continuity of channel bed and bank  | 0  | <mark>1</mark>                                   | 2  | 3   |
| 2. Sinuosity of channel along thalweg   | 0  | <mark>1</mark>                                   | 2  | 3   |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence   | O  | 1  | 2  | 3   |
| 4. Particle size of stream substrate  | 0  | <mark>1</mark>                                   | 2  | 3   |
| 5. Active/relict floodplain   | <mark>0</mark>   | 1  | 2  | 3   |
| 6. Depositional bars or benches   | <mark>0</mark>   | 1  | 2  | 3   |
| 7. Recent alluvial deposits   | <mark>0</mark>   | 1  | 2  | 3   |
| 8. Headcuts   | <mark>0</mark>   | 1  | 2  | 3   |
| 9. Grade control  | <mark>0</mark>   | 0.5  | 1  | 1.5   |
| 10. Natural valley  | 0  | <mark>0.5</mark>                                 | 1  | 1.5   |
| 11. Second or greater order channel   | N  | lo = 0   | Yes  | = 3   |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>1.5</u> )   |  |  |  |   |
| 12. Presence of Baseflow  | 0  | 1  | 2  | 3   |
| 13. Iron oxidizing bacteria   | 0  | 1  | 2  | 3   |
| ler nen enalling saeteria   | <b>~</b>   |  | —  |   |
| 14. Leaf litter   | 1.5  | 1  | 0.5  | 0   |
| 14. Leaf litter   |  | 1<br>0.5   | 0.5  | <mark>0</mark><br>1.5                                 |
|   | 1.5  |  |  | -   |
| 14. Leaf litter<br>15. Sediment on plants or debris   | 1.5<br>0<br>0  | 0.5  | 1  | 1.5<br>1.5  |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> </ul>  | 1.5<br>0<br>0  | 0.5<br>0.5                                       | 1<br>1<br>1                                      | 1.5<br>1.5  |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = 2_)</li> </ul>  | 1.5<br>0<br>0  | 0.5<br>0.5                                       | 1<br>1<br>1                                      | 1.5<br>1.5  |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =)</li> <li>18. Fibrous roots in streambed</li> </ul>   | 1.5<br>0<br>0<br>N   | 0.5<br>0.5<br>lo = 0                             | 1<br>1<br>Yes                                    | 1.5<br>1.5<br>= 3                                     |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> </ul>  | 1.5<br>0<br>0<br>N   | 0.5<br>0.5<br>lo = 0<br>2                        | 1<br>1<br>Yes<br>1                               | 1.5<br>1.5<br>= 3<br>0                                |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> </ul>   | 1.5<br>0<br>0<br>N<br>3<br>3   | 0.5<br>0.5<br>lo = 0<br>2<br>2                   | 1<br>1<br>Yes<br>1<br>1                          | 1.5<br>1.5<br>= 3<br>0<br>0                           |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =2_)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> </ul>                                       | 1.5<br>0<br>0<br>N<br>3<br>3<br>0                                    | 0.5<br>0.5<br>0 = 0<br>2<br>1                    | 1<br>1<br>Yes<br>1<br>1<br>2                     | 1.5<br>1.5<br>= 3<br>0<br>0<br>3                      |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> </ul>                       | 1.5<br>0<br>0<br>N<br>3<br>3<br>3<br>0<br>0                          | 0.5<br>0.5<br>lo = 0<br>2<br>2<br>1<br>1         | 1<br>1<br>Yes<br>1<br>1<br>2<br>2                | 1.5<br>1.5<br>= 3<br>0<br>0<br>3<br>3<br>3            |
| <ul><li>14. Leaf litter</li><li>15. Sediment on plants or debris</li><li>16. Organic debris lines or piles</li></ul>  | 1.5<br>0<br>0<br>N<br>3<br>3<br>3<br>0<br>0<br>0<br>0                | 0.5<br>0.5<br>0 = 0<br>2<br>2<br>1<br>1<br>0.5   | 1<br>1<br>Yes<br>1<br>2<br>2<br>1                | 1.5<br>1.5<br>= 3<br>0<br>0<br>3<br>3<br>1.5          |
| <ul> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> <li>23. Crayfish</li> </ul> | 1.5<br>0<br>0<br>0<br>N<br>3<br>3<br>3<br>0<br>0<br>0<br>0<br>0<br>0 | 0.5<br>0.5<br>0 = 0<br>2<br>1<br>1<br>0.5<br>0.5 | 1<br>1<br>Yes<br>1<br>2<br>2<br>1<br>1<br>1<br>1 | 1.5<br>1.5<br>= 3<br>0<br>0<br>3<br>1.5<br>1.5<br>1.5 |

# **Stream Identification Form**

| Date: 02/23/2021   | Project/Site: Telesto Solar  | Latitude: 37.69611                 |
|--|--|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky  | Longitude: -85.95447               |
| Total Points:<br>Stream is at least intermittent 28.75: Intermittent if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 25<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>20</u> )  | Absent                           | Weak             | Moderate       | Strong           |
|---|----------------------------------|------------------|----------------|------------------|
| 1 <sup>a.</sup> Continuity of channel bed and bank                                    | 0                                | 1                | 2              | <mark>3</mark>   |
| 2. Sinuosity of channel along thalweg   | 0                                | 1                | 2              | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0                                | 1                | 2              | 3                |
| 4. Particle size of stream substrate  | 0                                | 1                | <mark>2</mark> | 3                |
| 5. Active/relict floodplain   | 0                                | <mark>1</mark>   | 2              | 3                |
| 6. Depositional bars or benches   | 0                                | <mark>1</mark>   | 2              | 3                |
| 7. Recent alluvial deposits   | 0                                | <mark>1</mark>   | 2              | 3                |
| 8. Headcuts   | 0                                | <mark>1</mark>   | 2              | 3                |
| 9. Grade control  | 0                                | 0.5              | 1              | 1.5              |
| 10. Natural valley  | 0                                | 0.5              | <mark>1</mark> | 1.5              |
| 11. Second or greater order channel   | No                               | o = 0            | Yes            | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>6</u> ) |                                  |                  |                |                  |
| 12. Presence of Baseflow  | 0                                | <mark>1</mark>   | 2              | 3                |
| 13. Iron oxidizing bacteria   | <mark>0</mark>                   | 1                | 2              | 3                |
| 14. Leaf litter   | 1.5                              | <mark>1</mark>   | 0.5            | 0                |
| 15. Sediment on plants or debris  | 0                                | <mark>0.5</mark> | 1              | 1.5              |
| 16. Organic debris lines or piles   | 0                                | <mark>0.5</mark> | 1              | 1.5              |
| 17. Soil-based evidence of high water table?  | No                               | 0 = 0            | Yes            | <mark>= 3</mark> |
| C. Biology (Subtotal = <u>4.75</u> )  | •                                |                  | •              |                  |
| 18. Fibrous roots in streambed  | 3                                | <mark>2</mark>   | 1              | 0                |
| 19. Rooted upland plants in streambed   | 3                                | <mark>2</mark>   | 1              | 0                |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark>                   | 1                | 2              | 3                |
| 21. Aquatic Mollusks  | <mark>0</mark>                   | 1                | 2              | 3                |
| 22. Fish  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 23. Crayfish  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 24. Amphibians  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 25. Algae   | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
|   | FACW = 0.75; OBL = 1.5 Other = 0 |                  |                |                  |

# **Stream Identification Form**

| Date: 02/23/2021   | Project/Site: Telesto Solar  | Latitude: 37.69615                 |
|--|--|------------------------------------|
| Evaluator: Justin Stelly and Corbin Hoffmann   | County: Hardin County, Kentucky  | Longitude: -85.95539               |
| Total Points:<br>Stream is at least intermittent 28.75: Intermittent if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 26<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>18</u> )  | Absent                           | Weak             | Moderate       | Strong           |
|---|----------------------------------|------------------|----------------|------------------|
| 1 <sup>a</sup> Continuity of channel bed and bank                                     | 0                                | 1                | 2              | <mark>3</mark>   |
| 2. Sinuosity of channel along thalweg   | 0                                | 1                | 2              | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence             | 0                                | 1                | 2              | 3                |
| 4. Particle size of stream substrate  | 0                                | <mark>1</mark>   | 2              | 3                |
| 5. Active/relict floodplain   | 0                                | <mark>1</mark>   | 2              | 3                |
| 6. Depositional bars or benches   | 0                                | <mark>1</mark>   | 2              | 3                |
| 7. Recent alluvial deposits   | 0                                | 1                | 2              | 3                |
| 8. Headcuts   | 0                                | <mark>1</mark>   | 2              | 3                |
| 9. Grade control  | 0                                | 0.5              | <mark>1</mark> | 1.5              |
| 10. Natural valley  | 0                                | 0.5              | <mark>1</mark> | 1.5              |
| 11. Second or greater order channel   | N                                | 0 = 0            | Yes            | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>6</u> ) |                                  |                  |                |                  |
| 12. Presence of Baseflow  | 0                                | <mark>1</mark>   | 2              | 3                |
| 13. Iron oxidizing bacteria   | <mark>0</mark>                   | 1                | 2              | 3                |
| 14. Leaf litter   | 1.5                              | <mark>1</mark>   | 0.5            | 0                |
| 15. Sediment on plants or debris  | 0                                | <mark>0.5</mark> | 1              | 1.5              |
| 16. Organic debris lines or piles   | 0                                | <mark>0.5</mark> | 1              | 1.5              |
| 17. Soil-based evidence of high water table?  | N                                | o = 0            | Yes            | <mark>= 3</mark> |
| C. Biology (Subtotal = <u>4.75</u> )  |                                  |                  |                |                  |
| 18. Fibrous roots in streambed  | 3                                | <mark>2</mark>   | 1              | 0                |
| 19. Rooted upland plants in streambed   | 3                                | <mark>2</mark>   | 1              | 0                |
| 20. Macrobenthos (note diversity and abundance)                                       | <mark>0</mark>                   | 1                | 2              | 3                |
| 21. Aquatic Mollusks  | <mark>0</mark>                   | 1                | 2              | 3                |
| 22. Fish  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 23. Crayfish  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 24. Amphibians  | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 25. Algae   | <mark>0</mark>                   | 0.5              | 1              | 1.5              |
| 2017 1.940  | FACW = 0.75; OBL = 1.5 Other = 0 |                  |                |                  |

| Date: 03/23/2022   | Project/Site: Telesto Solar  | Latitude: 37.687659                |
|--|--|------------------------------------|
| Evaluator: Sam Waltman and Chad Martin   | County: Hardin County, Kentucky  | Longitude: -85.970976              |
| Total Points:<br>Stream is at least intermittent 22.25: Intermittent if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 27<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>12</u> )             | Absent           | Weak             | Moderate       | Strong           |
|--|------------------|------------------|----------------|------------------|
| 1 <sup>a</sup> Continuity of channel bed and bank    | 0                | 1                | 2              | 3                |
| 2. Sinuosity of channel along thalweg                | 0                | 1                | 2              | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, | 0                | 1                | 2              | 3                |
| ripple-pool sequence                                 | 0                | <u> </u>         | 2              | -                |
| 4. Particle size of stream substrate                 | 0                | <mark>1</mark>   | 2              | 3                |
| 5. Active/relict floodplain                          | 0                | <mark>1</mark>   | 2              | 3                |
| 6. Depositional bars or benches                      | 0                | <mark>1</mark>   | 2              | 3                |
| 7. Recent alluvial deposits                          | 0                | <mark>1</mark>   | 2              | 3                |
| 8. Headcuts  | 0                | <mark>1</mark>   | 2              | 3                |
| 9. Grade control                                     | 0                | <mark>0.5</mark> | 1              | 1.5              |
| 10. Natural valley                                   | 0                | <mark>0.5</mark> | 1              | 1.5              |
| 11. Second or greater order channel                  | No               | = 0              | Yes:           | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.       |                  |                  |                |                  |
| B. Hydrology (Subtotal = <u>6.5</u> )                |                  |                  |                |                  |
| 12. Presence of Baseflow                             | 0                | <mark>1</mark>   | 2              | 3                |
| 13. Iron oxidizing bacteria                          | 0                | <mark>1</mark>   | 2              | 3                |
| 14. Leaf litter                                      | <mark>1.5</mark> | 1                | 0.5            | 0                |
| 15. Sediment on plants or debris                     | <mark>0</mark>   | 0.5              | 1              | 1.5              |
| 16. Organic debris lines or piles                    | <mark>0</mark>   | 0.5              | 1              | 1.5              |
| 17. Soil-based evidence of high water table?         | No               | = 0              | Yes:           | <mark>= 3</mark> |
| C. Biology (Subtotal = <u>3.75</u> )                 |                  |                  |                |                  |
| 18. Fibrous roots in streambed                       | 3                | <mark>2</mark>   | 1              | 0                |
| 19. Rooted upland plants in streambed                | 3                | 2                | <mark>1</mark> | 0                |
| 20. Macrobenthos (note diversity and abundance)      | <mark>0</mark>   | 1                | 2              | 3                |
| 21. Aquatic Mollusks                                 | 0                | 1                | 2              | 3                |
| 22. Fish   | 0                | 0.5              | 1              | 1.5              |
| 23. Crayfish   | 0                | 0.5              | 1              | 1.5              |
| 24. Amphibians                                       | 0                | 0.5              | 1              | 1.5              |
|  | 0                | 0.5              | 1              | 1.5              |
| 25. Algae  |                  |                  |                |                  |

Notes:

# **Stream Identification Form**

| Date: 03/23/2022  | Project/Site: Telesto Solar   | Latitude: 37.685900                |
|---|---|------------------------------------|
| Evaluator: Sam Waltman and Chad Martin  | County: Hardin County, Kentucky                                       | Longitude: -85.976016              |
| Total Points:<br>Stream is at least intermittent 15.75: Ephemeral if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other Stream 28<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = 9)  | Absent   | Weak   | Moderate   | Strong   |
|--|--|--|--|--|
| 1 <sup>a.</sup> Continuity of channel bed and bank   | 0  | <mark>1</mark>   | 2  | 3  |
| 2. Sinuosity of channel along thalweg  | 0  | <mark>1</mark>   | 2  | 3  |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence  | 0  | 1  | 2  | 3  |
| 4. Particle size of stream substrate   | 0  | <mark>1</mark>   | 2  | 3  |
| 5. Active/relict floodplain  | 0  | <mark>1</mark>   | 2  | 3  |
| 6. Depositional bars or benches  | 0  | <mark>1</mark>   | 2  | 3  |
| 7. Recent alluvial deposits  | 0  | <mark>1</mark>   | 2  | 3  |
| 8. Headcuts  | 0  | <mark>1</mark>   | 2  | 3  |
| 9. Grade control   | 0  | <mark>0.5</mark>   | 1  | 1.5  |
| 10. Natural valley   | 0  | <mark>0.5</mark>   | 1  | 1.5  |
| 11. Second or greater order channel  | N  | <mark>o = 0</mark>   | Yes  | = 3  |
| <sup>a</sup> artificial ditches are not rated.<br>B. Hydrology (Subtotal = <u>4</u> )  |  |  |  |  |
| 12. Presence of Baseflow   | 0  | 1  | 2  | 3  |
| 12. I Tesence of Dasenow   | <b>U</b>   | 1  | 2  | 5  |
|  | 0  | 1  | 2  | 3  |
| 13. Iron oxidizing bacteria<br>14. Leaf litter   |  |  |  | -  |
| 13. Iron oxidizing bacteria  | 0  | 1  | 2  | 3  |
| 13. Iron oxidizing bacteria<br>14. Leaf litter<br>15. Sediment on plants or debris   | <mark>0</mark><br>1.5  | 1  | 2<br>0.5   | 3<br>0   |
| 13. Iron oxidizing bacteria<br>14. Leaf litter   | 0<br>1.5<br>0<br>0   | 1<br>1<br>0.5  | 2<br>0.5<br>1  | 3<br>0<br>1.5<br>1.5   |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> </ul>  | 0<br>1.5<br>0<br>0   | 1<br>1<br>0.5<br><mark>0.5</mark>  | 2<br>0.5<br>1<br>1   | 3<br>0<br>1.5<br>1.5   |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>2.75</u>)</li> </ul>   | 0<br>1.5<br>0<br>0   | 1<br>1<br>0.5<br><mark>0.5</mark>  | 2<br>0.5<br>1<br>1   | 3<br>0<br>1.5<br>1.5   |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = 2.75)</li> <li>18. Fibrous roots in streambed</li> </ul>  | 0<br>1.5<br>0<br>0<br>N  | 1<br>1<br>0.5<br>0.5<br>0 = 0  | 2<br>0.5<br>1<br>1<br>Yes  | 3<br>0<br>1.5<br>1.5<br>= 3  |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>2.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> </ul>  | 0<br>1.5<br>0<br>0<br>N  | 1<br>0.5<br>0.5<br>0 = 0<br>2  | 2<br>0.5<br>1<br>1<br>Yes  | 3<br>0<br>1.5<br>1.5<br>= 3  |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> </ul>  | 0<br>1.5<br>0<br>0<br>N  | 1<br>1<br>0.5<br>0.5<br>0 = 0<br>2<br>2  | 2<br>0.5<br>1<br>1<br>Yes<br>1<br>1  | 3<br>0<br>1.5<br>1.5<br>= 3  |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>2.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> </ul>   | 0<br>1.5<br>0<br>0<br>N<br>3<br>3<br>3<br>0                          | $     \begin{array}{r}       1 \\       1 \\       0.5 \\       0.5 \\       0 = 0 \\       2 \\       2 \\       1   \end{array} $                                | 2<br>0.5<br>1<br>1<br>Yes<br>1<br>1<br>2   | 3<br>0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>3                         |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =2.75)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> </ul>                               | 0<br>1.5<br>0<br>0<br>0<br>N<br>0<br>N                               | 1     1     0.5     0.5     0 = 0     2     2     1     1  | 2<br>0.5<br>1<br>1<br>Yes<br>1<br>1<br>2<br>2<br>2   | 3<br>0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>3<br>3                    |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal =2.75)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> </ul>   | 0<br>1.5<br>0<br>0<br>N<br>0<br>N<br>1<br>0<br>0<br>0<br>0           | $     \begin{array}{r}       1 \\       1 \\       0.5 \\       0.5 \\       0 = 0 \\       2 \\       2 \\       1 \\       1 \\       0.5 \\       \end{array} $ | 2<br>0.5<br>1<br>1<br>Yes<br>1<br>2<br>2<br>2<br>1   | 3<br>0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>0<br>3<br>3<br>1.5        |
| <ul> <li>13. Iron oxidizing bacteria</li> <li>14. Leaf litter</li> <li>15. Sediment on plants or debris</li> <li>16. Organic debris lines or piles</li> <li>17. Soil-based evidence of high water table?</li> <li>C. Biology (Subtotal = <u>2.75</u>)</li> <li>18. Fibrous roots in streambed</li> <li>19. Rooted upland plants in streambed</li> <li>20. Macrobenthos (note diversity and abundance)</li> <li>21. Aquatic Mollusks</li> <li>22. Fish</li> <li>23. Crayfish</li> </ul> | 0<br>1.5<br>0<br>0<br>N<br>0<br>N<br>0<br>N<br>0<br>0<br>0<br>0<br>0 | $ \begin{array}{r} 1 \\ 0.5 \\ 0.5 \\ 0 = 0 \\ \hline 2 \\ 2 \\ 1 \\ 1 \\ 0.5 \\ 0.5 \\ \hline 0.5 \\ \hline \end{array} $   | 2<br>0.5<br>1<br>1<br>Yes<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 3<br>0<br>1.5<br>1.5<br>= 3<br>0<br>0<br>0<br>3<br>3<br>1.5<br>1.5 |

# **Stream Identification Form**

| Date: 03/23/2022   | Project/Site: Telesto Solar  | Latitude: 37.684942                |
|--|--|------------------------------------|
| Evaluator: Sam Waltman and Chad Martin   | County: Hardin County, Kentucky  | Longitude: -85.973198              |
| Total Points:<br>Stream is at least intermittent 22.25: Intermittent if $\geq$ 19 or perennial if $\geq$ 30* | Stream Determination (circle one)<br>Ephemeral <mark>Intermittent</mark> Perennial | Other Stream 29<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>12</u> )             | Absent         | Weak             | Moderate         | Strong           |
|--|----------------|------------------|------------------|------------------|
| 1 <sup>a</sup> Continuity of channel bed and bank    | 0              | <mark>1</mark>   | 2                | 3                |
| 2. Sinuosity of channel along thalweg                | 0              | <mark>1</mark>   | 2                | 3                |
| 3. In-channel structure: ex. riffle-pool, step-pool, | 0              | 1                | 2                | 3                |
| ripple-pool sequence                                 | -              | <u> </u>         |                  |                  |
| 4. Particle size of stream substrate                 | 0              | <mark>1</mark>   | 2                | 3                |
| 5. Active/relict floodplain                          | 0              | <mark>1</mark>   | 2                | 3                |
| 6. Depositional bars or benches                      | 0              | <mark>1</mark>   | 2                | 3                |
| 7. Recent alluvial deposits                          | 0              | <mark>1</mark>   | 2                | 3                |
| 8. Headcuts  | 0              | <mark>1</mark>   | 2                | 3                |
| 9. Grade control                                     | 0              | <mark>0.5</mark> | 1                | 1.5              |
| 10. Natural valley                                   | 0              | <mark>0.5</mark> | 1                | 1.5              |
| 11. Second or greater order channel                  | No             | 0 = 0            | Yes              | <mark>= 3</mark> |
| <sup>a</sup> artificial ditches are not rated.       |                |                  |                  |                  |
| B. Hydrology (Subtotal = <u>5.5</u> )                |                |                  |                  |                  |
| 12. Presence of Baseflow                             | 0              | 1                | 2                | 3                |
| 13. Iron oxidizing bacteria                          | <mark>0</mark> | 1                | 2                | 3                |
| 14. Leaf litter                                      | 1.5            | 1                | <mark>0.5</mark> | 0                |
| 15. Sediment on plants or debris                     | 0              | <mark>0.5</mark> | 1                | 1.5              |
| 16. Organic debris lines or piles                    | 0              | <mark>0.5</mark> | 1                | 1.5              |
| 17. Soil-based evidence of high water table?         | No             | 0 = 0            | Yes              | <mark>= 3</mark> |
| C. Biology (Subtotal = $4.75$ )                      |                |                  | ·                |                  |
| 18. Fibrous roots in streambed                       | 3              | 2                | 1                | 0                |
| 19. Rooted upland plants in streambed                | 3              | 2                | 1                | 0                |
| 20. Macrobenthos (note diversity and abundance)      | 0              | 1                | 2                | 3                |
| 21. Aquatic Mollusks                                 | 0              | 1                | 2                | 3                |
| 22. Fish   | 0              | 0.5              | 1                | 1.5              |
| 23. Crayfish   | 0              | 0.5              | 1                | 1.5              |
| 24. Amphibians                                       | 0              | 0.5              | 1                | 1.5              |
|  |                |                  | 1                | 1.5              |
| 25. Algae  | <mark>0</mark> | 0.5              |                  | 1.5              |

Notes:

Request No. 3:

Provide the United States Army Corps of Engineers Wetland Delineation Report.

Response:

A Wetland Delineation Report was produced as part of the Natural and Cultural Resource

Assessment. Please see attachment in response to Request No. 2.

Responding Witness: Chad Martin

# Request No. 4:

Provide any written communications or reports from the U.S. Department of Fish and Wildlife

related to this project.

Response:

See attached.

Responding Witness: Chad Martin



# United States Department of the Interior

FISH AND WILDLIFE SERVICE Kentucky Ecological Services Field Office 330 West Broadway, Suite 265 Frankfort, Kentucky 40601 (502) 695-0468

April 21, 2022

Sam Waltman Stantec 76 San Marcos Street Austin, Texas 78734

Subject: FWS 22-0025007; Telesto Solar Facility; Hardin County, Kentucky

Dear Sam Waltman:

The U.S. Fish and Wildlife Service's Kentucky Field Office (KFO) has reviewed your April 6, 2022 request for site-specific environmental review. The KFO offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) for your consideration.

# **Project Description**

The Telesto solar facility project area encompasses approximately 1,273 acres in Hardin County, Kentucky. The project area primarily consists of previously disturbed agricultural and pasture lands with scattered trees and small areas of forested habitat. As currently planned, Telesto does not anticipate a federal nexus associated within the project.

# Indiana Bat (Myotis sodalis)

# Northern Long-eared Bat (Myotis septentrionalis) (NLEB)

Cardno, Inc (Cardno) conducted a habitat assessment on behalf of Telesto in February 2021. No caves or cave-like features that could be used as winter roosts by the Indiana bat and/or NLEB were identified within the project area. The project area primarily consists of open land; however, trees within the project area were evaluated for their potential to provide suitable summer roosting habitat for both species. The majority of trees evaluated are scattered throughout the project area and do not exhibit suitable roost tree characteristics. Potential roost trees were identified within the small, forested areas and riparian corridors; however, these areas will be avoided. In addition, all tree removal will occur during the unoccupied timeframe (October 15 to March 31). Based on avoidance measures and tree clearing restrictions, we agree that the proposed project "may affect, but is not likely to adversely affect" the Indiana bat and NLEB.

### Gray bat (*Myotis grisescens*)

There are no caves or cave-like features within the project area that could be used as summer or winter roosts by gray bats. Streams within the project area could be used as potential foraging habitat for gray bats; however, no stream disturbance or removal of riparian habitat is proposed. Consequently, we agree that the proposed project "may affect, but is not likely to adversely affect" the gray bat.

## Snuffbox (*Epioblasma triquetra*)

Perennial streams within the project area have the potential to provide suitable habitat for the Snuffbox; however, no stream disturbance is proposed. Based on a lack of impacts to suitable habitat, we agree that the proposed project "may affect, but is not likely to adversely affect" the snuffbox.

### **Pollinator Habitat**

Pollinators, including the monarch butterfly (*Danaus plexippus*), play vital roles in our ecosystems. The main threats facing pollinators are habitat loss, degradation, and fragmentation. As native vegetation is replaced by roadways, manicured lawns, crops and non-native gardens, pollinators lose the habitat necessary for their survival. The monarch butterfly is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species, but we encourage all agencies and project proponents to take advantage of any opportunity they may have to conserve the species. For information on monarch conservation, please visit https://www.fws.gov/savethemonarch

Thank you for your request. Your concern for the protection of endangered and threatened species is appreciated. If you have any questions regarding the information that we have provided, please contact Carrie Allison at <u>Carrie Allison@fws.gov</u>.

Sincerely,

for Virgil Lee Andrew, Jr.

# Request No. 5:

Provide documentation from the Kentucky Airport Zoning Commission stating a permit for the

project is not necessary given the proximity to Addington Field.

Response:

See attached.

Responding Witness: Chad Martin

| From:        | Airport Zoning Commission                                     |
|--------------|---|
| То:          | Dutton, Gregory T.; Airport Zoning Commission                 |
| Cc:          | Chad Martin   |
| Subject:     | RE: Telesto Solar Project TC 55 and attachments for approval. |
| Date:        | Thursday, October 6, 2022 9:28:55 AM                          |
| Attachments: | image007.png  |
|              | image008.png  |
|              | image009.png  |
|              | image010.png  |
|              | image011.png  |
|              | image001.png  |

Good morning Mr. Dutton,

That is correct but not inclusive. I stated that KAZC has no jurisdiction over solar panels unless they are on airport property of airports in which there are FAA staffed (to include employed and contracted) Air Traffic Controllers.

In regard to your previous communication with Mr. Royer on the subject, I am not sure which regulatory references he may have been referring to but there are currently none within KRS or KAR statutes or regulations of which I am aware. The FAA has issued guidance on the matter that prove helpful (see link). <u>FAA Issues Policy on Solar Projects on Airports | Federal Aviation</u> <u>Administration</u>

Based on the coordinates provided, I do not believe the project falls on EKX property nor is EKX a Controlled Field so your planned project, based on typical solar panel fields that collect and absorb light energy (versus reflecting light which would be inefficient and defeat the purpose of the project), should have no impact on the safety of air navigation.



I hope that helps but please feel free to call me if you have any more questions or need clarification. Thank you, Brad

Brad Schwandt Airport Zoning Administration Department of Aviation 90 Airport Road Frankfort, KY 40601 Office: 502-564-0525 AirportZoning@ky.gov



From: Dutton, Gregory T. <gdutton@fbtlaw.com>
Sent: Wednesday, October 5, 2022 2:33 PM
To: Airport Zoning Commission <AirportZoning@ky.gov>
Cc: Chad Martin <chad.martin@cardno.com>
Subject: FW: Telesto Solar Project TC 55 and attachments for approval.

Mr. Schwandt,

I am writing to confirm my understanding of your email below to Mr. Hess. If I understand correctly, the KY Airport Zoning Commission has determined that it has no jurisdiction over solar projects in Kentucky unless they are located on airport property. Is this correct? I ask in part because I received a very different opinion from Mr. Royer last year and just want to be certain that I understand the Commission's position before we file an application on a different project. Please feel free to give me a call if you think a discussion would help.

Thank you, Greg

## **Gregory T. Dutton**

Attorney at Law | Frost Brown Todd LLC

502.779.8557 Direct 502.445.6510 Mobile

gdutton@fbtlaw.com

From: Chad Martin <<u>chad.martin@cardno.com</u>>
Sent: Monday, October 3, 2022 12:49 PM
To: Dutton, Gregory T. <<u>gdutton@fbtlaw.com</u>>
Subject: FW: Telesto Solar Project TC 55 and attachments for approval.

From: Airport Zoning Commission < >
Sent: Monday, October 3, 2022 11:02 AM
To: Jonathan Hess <<u>jonathan.hess@cardno.com</u>>; Airport Zoning Commission <<u>AirportZoning@ky.gov</u>>
Cc: Chad Martin <<u>chad.martin@cardno.com</u>>
Subject: RE: Telesto Solar Project TC 55 and attachments for approval.

Mr. Hess,

There is no requirement for FAA or State of Kentucky approval for Solar Panels that are not on airport property (of an airport with FAA Air Traffic Controllers on staff) so you are free to proceed with your project from an airspace standpoint.

Regards, Brad

Brad Schwandt Airport Zoning Administration Department of Aviation 90 Airport Road Frankfort, KY 40601 Office: 502-564-0151 AirportZoning@ky.gov



From: Jonathan Hess <<u>jonathan.hess@cardno.com</u>>
Sent: Wednesday, September 28, 2022 9:54 AM
To: Airport Zoning Commission <<u>AirportZoning@ky.gov</u>>
Cc: Chad Martin <<u>chad.martin@cardno.com</u>>
Subject: Telesto Solar Project TC 55 and attachments for approval.

\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk <u>ServiceCorrespondence@ky.gov</u> for any assistance.

To Whom it may Concern,

Telesto Solar is seeking approval from the Kentucky Airport Zoning Commission for the Telesto Solar Project. Please see the attached Form TC 55-2, FAA Determination of No Hazard to Air Navigation, and the Glare Analysis completed for the proposed Telesto Solar Project located near Elizabethtown Regional Airport in Hardin County, KY. Please let me know if you have any questions or concerns.

Regards,

Jonathan D Hess ENVIRONMENTAL PROJECT MANAGER CARDNO



Mobile +1 484 678 2641 Address 5113 Southwest Parkway Travis Oaks, Austin, TX 78735 Email jonathan.hess@cardno.com Web www.cardno.com



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# Request No. 6:

Provide documentation on the renewable energy credit agreement.

# Response:

The renewable energy credit (REC) transfer agreement is a long-term contract with a buyer with an investment-grade credit rating to purchase 100% of the RECs from the 110-megawatt Telesto project through the 20th year after commercial operation.

<u>Responding Witness</u>: Jack Steele

# Request No. 7:

Provide any easements or crossing agreements that have been executed for the collection system outside of the property boundary. Provide updates to this response as more easements or crossing agreements are finalized.

# Response:

No easements or crossing agreements have been executed for the collection system outside of the property boundary. The project is expecting signatures for multiple easements in the near future, and will provide them when completed. All necessary crossing agreement counterparties have been identified, and will be furnished with crossing applications upon completion of necessary surveys and engineering exhibits.

# Request No. 8:

Provide the results of soil tests conducted by the Environmental Protection Agency.

# Response:

Per discussions with Siting Board staff, we believe this question is asking for information pertaining to the EPA's Toxicity Characteristic Leaching Procedure (TCLP) test results for project panels. That information is attached here. The EPA thresholds for hazardous waste are also provided and show that the TCLP test results for the panels used in the project fall well below the EPA thresholds.

# 🛟 eurofins

# Environment Testing TestAmerica

# **ANALYTICAL REPORT**

# Eurofins TestAmerica, Irvine 17461 Derian Ave

Suite 100 Irvine, CA 92614-5817 Tel: (949)261-1022

# Laboratory Job ID: 440-232851-1

Client Project/Site: Willow Springs Revision: 1

# For:

..... Links

Review your project results through

Total Access

Have a Question?

Ask-

The

www.testamericainc.com

Visit us at:

Expert

First Solar Electric LLC 350 W Washington St Suite 600 Tempe, Arizona 85281

# Attn: Steven Borst

1An

Authorized for release by: 9/10/2019 2:47:18 PM

Rossina Tomova, Project Manager I (949)260-3276 rossina.tomova@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# **Table of Contents**

| Cover Page             | 1  |
|------------------------|----|
| Table of Contents      | 2  |
| Sample Summary         | 3  |
| Case Narrative         | 4  |
| Client Sample Results  | 5  |
| Method Summary         | 7  |
| Lab Chronicle          | 8  |
| QC Sample Results      | 10 |
| QC Association Summary | 12 |
| Definitions/Glossary   | 14 |
| Certification Summary  | 15 |
| Chain of Custody       | 16 |
| Receipt Checklists     | 17 |
|                        |    |

# Sample Summary

Client: First Solar Electric LLC Project/Site: Willow Springs

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | As |
|---------------|------------------|--------|----------------|----------------|----|
| 440-232851-1  | 012819 TCLP01    | Solid  | 01/28/19 08:00 | 02/08/19 10:45 |    |
| 440-232851-2  | 012819 TCLP02    | Solid  | 01/28/19 08:00 | 02/08/19 10:45 |    |
| 440-232851-3  | 012819 TCLP03    | Solid  | 01/28/19 08:00 | 02/08/19 10:45 |    |
| 440-232851-4  | 012819 TCLP04    | Solid  | 01/28/19 08:00 | 02/08/19 10:45 |    |
| 440-232851-5  | 012819 TCLP05    | Solid  | 01/28/19 08:00 | 02/08/19 10:45 |    |

## Job ID: 440-232851-1

### Laboratory: Eurofins TestAmerica, Irvine

### Narrative

Job Narrative 440-232851-1

### Comments

Per client request the report was revised to include only TCLP analyses. No additional comments.

### Receipt

The samples were received on 2/8/2019 10:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

### Metals

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Zinc for preparation batch 440-527738 and 440-527844 and analytical batch 440-528067 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

RL

0.10

0.20

0.10

0.20

0.20

0.10

0.10

RL

0.0020

**Result Qualifier** 

ND

ND

0.42

ND

ND

ND

ND

ND

**Result Qualifier** 

Unit

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

Unit

mg/L

Analyte

Lead

Silver

Barium

Arsenic

Selenium

Chromium

Analyte

Mercury

Cadmium

# Client Sample ID: 012819 TCLP01 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Method: 6010B - Metals (ICP) - TCLP

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: 012819 TCLP02

Date Collected: 01/28/19 08:00

Date Received: 02/08/19 10:45

Analyzed

Analyzed

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

Dil Fac

Lab Sample ID: 440-232851-1

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/11/19 05:46 02/11/19 20:50

02/22/19 14:41 02/23/19 04:13

Prepared

Prepared

D

D

# Lab Sample ID: 440-232851-2 Matrix: Solid

Matrix: Solid

| Method: 6010B - Metals (ICP) - TCLP |               |           |      |      |   |                |                |         |  |  |  |
|-------------------------------------|---------------|-----------|------|------|---|----------------|----------------|---------|--|--|--|
| Analyte                             | Result        | Qualifier | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |  |  |  |
| Lead                                | ND            |           | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Silver                              | ND            |           | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Cadmium                             | 0.21          |           | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Barium                              | ND            |           | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Arsenic                             | ND            |           | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Selenium                            | ND            |           | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Chromium                            | ND            |           | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:40 | 1       |  |  |  |
| Method: 7470A - Mercury             | (CVAA) - TCLP |           |      |      |   |                |                |         |  |  |  |
| Analyte                             |               | Qualifier | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |  |  |  |

#### 02/22/19 14:41 02/23/19 04:20 ND 0.0020 mg/L Mercury Lab Sample ID: 440-232851-3

### Client Sample ID: 012819 TCLP03 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

| Method: 6010B - Meta | ls (ICP) - TCLP    |           |        |      |   |                |                |         |
|----------------------|--------------------|-----------|--------|------|---|----------------|----------------|---------|
| Analyte              | Result             | Qualifier | RL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
| Lead                 | ND                 |           | 0.10   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Silver               | ND                 |           | 0.20   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Cadmium              | 0.26               |           | 0.10   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Barium               | ND                 |           | 0.20   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Arsenic              | ND                 |           | 0.20   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Selenium             | ND                 |           | 0.10   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Chromium             | ND                 |           | 0.10   | mg/L |   | 02/11/19 05:46 | 02/11/19 20:42 | 1       |
| Method: 7470A - Merc | cury (CVAA) - TCLP |           |        |      |   |                |                |         |
| Analyte              | Result             | Qualifier | RL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
| Mercury              | ND                 |           | 0.0020 | mg/L |   | 02/22/19 14:41 | 02/23/19 04:22 | 1       |

RL

0.10

0.20

0.10

0.20

0.20

0.10

0.10

RL

0.0020

**Result Qualifier** 

ND

ND

0.55

ND

ND

ND

ND

**Result Qualifier** 

Unit

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

Unit

mg/L

Analyte

Lead

Silver

Barium

Arsenic

Selenium

Chromium

Analyte

Mercury

Cadmium

# Client Sample ID: 012819 TCLP04 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Method: 6010B - Metals (ICP) - TCLP

Method: 7470A - Mercury (CVAA) - TCLP

Analyzed

Analyzed

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

1

Dil Fac

Lab Sample ID: 440-232851-4

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/11/19 05:46 02/11/19 20:45

02/22/19 14:41 02/23/19 04:24

Prepared

Prepared

D

D

5

# Lab Sample ID: 440-232851-5 Matrix: Solid

| Method: 6010B - Meta<br>Analyte | · · ·             | Qualifier                             | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------------|---------------------------------------|------|------|---|----------------|----------------|---------|
| Lead                            | ND                | · · · · · · · · · · · · · · · · · · · | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Silver                          | ND                |                                       | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Cadmium                         | 0.27              |                                       | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Barium                          | ND                |                                       | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Arsenic                         | ND                |                                       | 0.20 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Selenium                        | ND                |                                       | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| Chromium                        | ND                |                                       | 0.10 | mg/L |   | 02/11/19 05:46 | 02/11/19 20:47 | 1       |
| -                               |                   |                                       |      | Ū.   |   |                |                |         |
| Method: 7470A - Merc            | ury (CVAA) - TCLP |                                       |      |      |   |                |                |         |
| Analyte                         | Result            | Qualifier                             | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |

| Analyte | Result Qualifier | RL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|------------------|--------|------|---|----------------|----------------|---------|
| Mercury | ND               | 0.0020 | mg/L |   | 02/22/19 14:41 | 02/23/19 04:26 | 1       |

# ND Client Sample ID: 012819 TCLP05 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

# **Method Summary**

### Client: First Solar Electric LLC Project/Site: Willow Springs

| Method | Method Description        | Protocol | Laboratory |
|--------|---------------------------|----------|------------|
| 6010B  | Metals (ICP)              | SW846    | TAL IRV    |
| 7470A  | Mercury (CVAA)            | SW846    | TAL IRV    |
| 311    | TCLP Extraction           | SW846    | TAL IRV    |
| 010A   | Preparation, Total Metals | SW846    | TAL IRV    |
| 7470A  | Preparation, Mercury      | SW846    | TAL IRV    |

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Client Sample ID: 012819 TCLP01 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Client Sample ID: 012819 TCLP02

Date Collected: 01/28/19 08:00

Date Received: 02/08/19 10:45

TCLP

|           | Batch    | Batch  |     | Dil    | Initial | Final   | Batch  | Prepared       |         |         |
|-----------|----------|--------|-----|--------|---------|---------|--------|----------------|---------|---------|
| Prep Type | Туре     | Method | Run | Factor | Amount  | Amount  | Number | or Analyzed    | Analyst | Lab     |
| TCLP      | Leach    | 1311   |     |        | 99.96 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     | TAL IRV |
| TCLP      | Prep     | 3010A  |     |        | 5 mL    | 50 mL   | 527844 | 02/11/19 05:46 | CDH     | TAL IRV |
| TCLP      | Analysis | 6010B  |     | 1      |         |         | 528067 | 02/11/19 20:50 | P1R     | TAL IRV |
| TCLP      | Leach    | 1311   |     |        | 99.96 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     | TAL IRV |
| TCLP      | Prep     | 7470A  |     |        | 2 mL    | 20 mL   | 530208 | 02/22/19 14:41 | DB      | TAL IRV |
| TCLP      | Analysis | 7470A  |     | 1      |         |         | 530531 | 02/23/19 04:13 | DB      | TAL IRV |

530531

| _         | Batch    | Batch  |     | Dil    | Initial | Final   | Batch  | Prepared       |         |
|-----------|----------|--------|-----|--------|---------|---------|--------|----------------|---------|
| Prep Type | Туре     | Method | Run | Factor | Amount  | Amount  | Number | or Analyzed    | Analyst |
| TCLP      | Leach    | 1311   |     |        | 99.97 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     |
| TCLP      | Prep     | 3010A  |     |        | 5 mL    | 50 mL   | 527844 | 02/11/19 05:46 | CDH     |
| TCLP      | Analysis | 6010B  |     | 1      |         |         | 528067 | 02/11/19 20:40 | P1R     |
| TCLP      | Leach    | 1311   |     |        | 99.97 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     |
| TCLP      | Prep     | 7470A  |     |        | 2 mL    | 20 mL   | 530208 | 02/22/19 14:41 | DB      |

1

### Client Sample ID: 012819 TCLP03 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Analysis

7470A

|           | Batch    | Batch  |     | Dil    | Initial | Final   | Batch  | Prepared       |         |         |
|-----------|----------|--------|-----|--------|---------|---------|--------|----------------|---------|---------|
| Prep Type | Туре     | Method | Run | Factor | Amount  | Amount  | Number | or Analyzed    | Analyst | Lab     |
| TCLP      | Leach    | 1311   |     |        | 99.97 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     | TAL IRV |
| TCLP      | Prep     | 3010A  |     |        | 5 mL    | 50 mL   | 527844 | 02/11/19 05:46 | CDH     | TAL IRV |
| TCLP      | Analysis | 6010B  |     | 1      |         |         | 528067 | 02/11/19 20:42 | P1R     | TAL IRV |
| TCLP      | Leach    | 1311   |     |        | 99.97 g | 2000 mL | 527738 | 02/10/19 09:00 | CDH     | TAL IRV |
| TCLP      | Prep     | 7470A  |     |        | 2 mL    | 20 mL   | 530208 | 02/22/19 14:41 | DB      | TAL IRV |
| TCLP      | Analysis | 7470A  |     | 1      |         |         | 530531 | 02/23/19 04:22 | DB      | TAL IRV |

## Client Sample ID: 012819 TCLP04 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

## Lab Sample ID: 440-232851-4 Matrix: Solid

Dil Batch Batch Initial Final Batch Prepared Prep Type Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab TCLP Leach 1311 99.94 g 2000 mL 527738 02/10/19 09:00 CDH TAL IRV TCLP 3010A 5 mL 527844 02/11/19 05:46 CDH TAL IRV Prep 50 mL 6010B TCLP Analysis 1 528067 02/11/19 20:45 P1R TAL IRV TCLP Leach 1311 99.94 g 02/10/19 09:00 CDH TAL IRV 2000 mL 527738 TCLP 7470A 2 mL 530208 TAL IRV Prep 20 mL 02/22/19 14:41 DB TCLP Analysis 7470A 1 530531 02/23/19 04:24 DB TAL IRV

Eurofins TestAmerica, Irvine

# Lab Sample ID: 440-232851-1 Matrix: Solid

Lab Sample ID: 440-232851-2

Matrix: Solid

Lab TAL IRV TAL IRV TAL IRV TAL IRV

Matrix: Solid

Initial

Amount

99.98 g

5 mL

99.98 g

2 mL

Final

Amount

2000 mL

50 mL

2000 mL

20 mL

Batch

Number

527738

527844

528067

527738

530208

530531

Dil

1

1

Factor

# Client Sample ID: 012819 TCLP05 Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Batch

Туре

Leach

Prep

Analysis

Analysis

Leach

Prep

Batch

Method

1311

3010A

6010B

1311

7470A

7470A

| .loh | ١D· | 440-232851-1 |  |
|------|-----|--------------|--|
| 300  | ю.  | 440-202001-1 |  |

# Lab Sample ID: 440-232851-5 Matrix: Solid

Analyst

CDH

Lab

TAL IRV

TAL IRV

TAL IRV

TAL IRV

TAL IRV

TAL IRV

Prepared

or Analyzed

02/10/19 09:00

02/11/19 05:46 CDH

02/11/19 20:47 P1R

02/10/19 09:00 CDH

02/22/19 14:41 DB

02/23/19 04:26 DB

### Laboratory References:

Prep Type

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Run

# Method: 6010B - Metals (ICP)

### Lab Sample ID: MB 440-527738/1-B **Matrix: Solid**

Analysis Batch: 528067

| -        | MB     | MB        |      |      |                |                |         |
|----------|--------|-----------|------|------|----------------|----------------|---------|
| Analyte  | Result | Qualifier | RL   | Unit | D Prepared     | Analyzed       | Dil Fac |
| Lead     | ND     |           | 0.10 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Silver   | ND     |           | 0.20 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Cadmium  | ND     |           | 0.10 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Barium   | ND     |           | 0.20 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Arsenic  | ND     |           | 0.20 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Selenium | ND     |           | 0.10 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
| Chromium | ND     |           | 0.10 | mg/L | 02/11/19 05:46 | 02/11/19 20:06 | 1       |
|          |        |           |      |      |                |                |         |

### Lab Sample ID: LCS 440-527738/2-B Matrix: Solid

Analysis Batch: 528067

| Analysis Batch: 528067 | Spike | LCS    | LCS       |      |   |      | %Rec.    | cn: 527844 |
|------------------------|-------|--------|-----------|------|---|------|----------|------------|
| Analyte                | Added | Result | Qualifier | Unit | D | %Rec | Limits   |            |
| Lead                   | 2.00  | 1.97   |           | mg/L |   | 98   | 80 - 120 |            |
| Silver                 | 1.00  | 0.960  |           | mg/L |   | 96   | 80 - 120 |            |
| Cadmium                | 2.00  | 1.99   |           | mg/L |   | 99   | 80 - 120 |            |
| Barium                 | 2.00  | 1.97   |           | mg/L |   | 98   | 80 - 120 |            |
| Arsenic                | 2.00  | 1.94   |           | mg/L |   | 97   | 80 - 120 |            |
| Selenium               | 2.00  | 1.81   |           | mg/L |   | 91   | 80 - 120 |            |
| Chromium               | 2.00  | 1.99   |           | mg/L |   | 99   | 80 - 120 |            |

### Lab Sample ID: 440-224566-A-1-F MS Matrix: Solid Analysis Batch: 528067

| Analysis Batch: 528067 | <b>.</b> . |           | • •   |        |           |      |   |      | Prep Batch: 527844  |
|------------------------|------------|-----------|-------|--------|-----------|------|---|------|---------------------|
|                        | Sample     | Sample    | Spike | MS     | MS        |      |   |      | %Rec.               |
| Analyte                | Result     | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits              |
| Lead                   | 0.20       |           | 2.00  | 2.20   |           | mg/L |   | 100  | 75 - 125            |
| Silver                 | ND         |           | 1.00  | 0.956  |           | mg/L |   | 96   | 75 - 125            |
| Cadmium                | ND         |           | 2.00  | 1.97   |           | mg/L |   | 99   | 75 - 125            |
| Barium                 | 0.54       |           | 2.00  | 2.56   |           | mg/L |   | 101  | 75 - 125            |
| Arsenic                | ND         |           | 2.00  | 1.93   |           | mg/L |   | 97   | 75 - 125            |
| Selenium               | ND         |           | 2.00  | 1.79   |           | mg/L |   | 89   | 75 - 125            |
| Chromium               | ND         |           | 2.00  | 2.00   |           | mg/L |   | 99   | 75 <sub>-</sub> 125 |

### Lab Sample ID: 440-224566-A-1-G MSD Matrix: Solid Analysis Batch: 528067

## **Client Sample ID: Matrix Spike Duplicate** Prep Type: TCLP

| Analysis Batch: 528067 |        |           |       |        |           |      |   |      | Prep Ba  | atch: 52 | 27844 |
|------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|----------|-------|
| -                      | Sample | Sample    | Spike | MSD    | MSD       |      |   |      | %Rec.    |          | RPD   |
| Analyte                | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits   | RPD      | Limit |
| Lead                   | 0.20   |           | 2.00  | 2.23   |           | mg/L |   | 102  | 75 - 125 | 1        | 20    |
| Silver                 | ND     |           | 1.00  | 0.962  |           | mg/L |   | 96   | 75 - 125 | 1        | 20    |
| Cadmium                | ND     |           | 2.00  | 1.98   |           | mg/L |   | 99   | 75 - 125 | 0        | 20    |
| Barium                 | 0.54   |           | 2.00  | 2.63   |           | mg/L |   | 105  | 75 - 125 | 2        | 20    |
| Arsenic                | ND     |           | 2.00  | 1.98   |           | mg/L |   | 99   | 75 - 125 | 2        | 20    |
| Selenium               | ND     |           | 2.00  | 1.76   |           | mg/L |   | 88   | 75 - 125 | 2        | 20    |
| Chromium               | ND     |           | 2.00  | 2.00   |           | mg/L |   | 99   | 75 - 125 | 0        | 20    |

### **Client Sample ID: Method Blank** Prep Type: TCLP Prep Batch: 527844

**Client Sample ID: Lab Control Sample** Prep Type: TCLP Prep Batch: 527844

**Client Sample ID: Matrix Spike** 

Prep Type: TCLP

8

Job ID: 440-232851-1

#### Method: 7470A - Mercury (CVAA) Lab Sample ID: MB 440-527738/1-D **Client Sample ID: Method Blank** Matrix: Solid Prep Type: TCLP Analysis Batch: 530531 Prep Batch: 530208 MB MB Analyte **Result Qualifier** RL Unit Prepared Analyzed D 02/22/19 14:41 02/23/19 04:09 Mercury 0.0020 mg/L ND Lab Sample ID: LCS 440-527738/2-D **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: TCLP Analysis Batch: 530531 Prep Batch: 530208 LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 0.0800 80 - 120 Mercury 0.0816 mg/L 102 Lab Sample ID: 440-232851-1 MS Client Sample ID: 012819 TCLP01 Matrix: Solid Prep Type: TCLP Analysis Batch: 530531 Prep Batch: 530208 Sample Sample Spike MS MS %Rec. Analyte **Result Qualifier** Added Result Qualifier Unit Limits D %Rec ND 0.0800 70 - 130 Mercury 0.0824 mg/L 103 Lab Sample ID: 440-232851-1 MSD Client Sample ID: 012819 TCLP01 Matrix: Solid Prep Type: TCLP

|                        |        |           |        |        |           |      |   |      | riep     | Type.    | IULI  |  |
|------------------------|--------|-----------|--------|--------|-----------|------|---|------|----------|----------|-------|--|
| Analysis Batch: 530531 |        |           |        |        |           |      |   |      | Prep Ba  | atch: 53 | 30208 |  |
| -                      | Sample | Sample    | Spike  | MSD    | MSD       |      |   |      | %Rec.    |          | RPD   |  |
| Analyte                | Result | Qualifier | Added  | Result | Qualifier | Unit | D | %Rec | Limits   | RPD      | Limit |  |
| Mercury                | ND     |           | 0.0800 | 0.0817 |           | mg/L |   | 102  | 70 - 130 | 1        | 20    |  |

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Prep Type

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

TCLP

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

**Client Sample ID** 

012819 TCLP01

012819 TCLP02

012819 TCLP03

012819 TCLP04

012819 TCLP05

Method Blank

Method Blank

Matrix Spike

012819 TCLP01

012819 TCLP01

Lab Control Sample

Lab Control Sample

Matrix Spike Duplicate

Leach Batch: 527738

Lab Sample ID

440-232851-1

440-232851-2

440-232851-3

440-232851-4

440-232851-5

MB 440-527738/1-B

MB 440-527738/1-D

LCS 440-527738/2-B

LCS 440-527738/2-D

440-232851-1 MS

440-232851-1 MSD

440-224566-A-1-F MS

440-224566-A-1-G MSD

**Metals** 

Prep Batch

Method

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# Prep Batch: 527844

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 440-232851-1         | 012819 TCLP01          | TCLP      | Solid  | 3010A  | 527738     |
| 440-232851-2         | 012819 TCLP02          | TCLP      | Solid  | 3010A  | 527738     |
| 440-232851-3         | 012819 TCLP03          | TCLP      | Solid  | 3010A  | 527738     |
| 440-232851-4         | 012819 TCLP04          | TCLP      | Solid  | 3010A  | 527738     |
| 440-232851-5         | 012819 TCLP05          | TCLP      | Solid  | 3010A  | 527738     |
| MB 440-527738/1-B    | Method Blank           | TCLP      | Solid  | 3010A  | 527738     |
| LCS 440-527738/2-B   | Lab Control Sample     | TCLP      | Solid  | 3010A  | 527738     |
| 440-224566-A-1-F MS  | Matrix Spike           | TCLP      | Solid  | 3010A  | 527738     |
| 440-224566-A-1-G MSD | Matrix Spike Duplicate | TCLP      | Solid  | 3010A  | 527738     |

# Analysis Batch: 528067

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 440-232851-1         | 012819 TCLP01          | TCLP      | Solid  | 6010B  | 527844     |
| 440-232851-2         | 012819 TCLP02          | TCLP      | Solid  | 6010B  | 527844     |
| 440-232851-3         | 012819 TCLP03          | TCLP      | Solid  | 6010B  | 527844     |
| 440-232851-4         | 012819 TCLP04          | TCLP      | Solid  | 6010B  | 527844     |
| 440-232851-5         | 012819 TCLP05          | TCLP      | Solid  | 6010B  | 527844     |
| MB 440-527738/1-B    | Method Blank           | TCLP      | Solid  | 6010B  | 527844     |
| LCS 440-527738/2-B   | Lab Control Sample     | TCLP      | Solid  | 6010B  | 527844     |
| 440-224566-A-1-F MS  | Matrix Spike           | TCLP      | Solid  | 6010B  | 527844     |
| 440-224566-A-1-G MSD | Matrix Spike Duplicate | TCLP      | Solid  | 6010B  | 527844     |

# Prep Batch: 530208

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 440-232851-1       | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-2       | 012819 TCLP02      | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-3       | 012819 TCLP03      | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-4       | 012819 TCLP04      | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-5       | 012819 TCLP05      | TCLP      | Solid  | 7470A  | 527738     |
| MB 440-527738/1-D  | Method Blank       | TCLP      | Solid  | 7470A  | 527738     |
| LCS 440-527738/2-D | Lab Control Sample | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-1 MS    | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 527738     |
| 440-232851-1 MSD   | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 527738     |

Client: First Solar Electric LLC Project/Site: Willow Springs Job ID: 440-232851-1

# Metals

## Analysis Batch: 530531

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 440-232851-1       | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-2       | 012819 TCLP02      | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-3       | 012819 TCLP03      | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-4       | 012819 TCLP04      | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-5       | 012819 TCLP05      | TCLP      | Solid  | 7470A  | 530208     |
| MB 440-527738/1-D  | Method Blank       | TCLP      | Solid  | 7470A  | 530208     |
| LCS 440-527738/2-D | Lab Control Sample | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-1 MS    | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 530208     |
| 440-232851-1 MSD   | 012819 TCLP01      | TCLP      | Solid  | 7470A  | 530208     |

# **Definitions/Glossary**

### Client: First Solar Electric LLC Project/Site: Willow Springs

| Glossary       |   | 2   |
|----------------|---|-----|
| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 | - 3 |
| ¤              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  | - 1 |
| %R             | Percent Recovery  |     |
| CFL            | Contains Free Liquid  | 5   |
| CNF            | Contains No Free Liquid   | 3   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  | 6   |
| Dil Fac        | Dilution Factor   | 0   |
| DL             | Detection Limit (DoD/DOE)   | _   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |     |
| DLC            | Decision Level Concentration (Radiochemistry)   |     |
| EDL            | Estimated Detection Limit (Dioxin)  | 8   |
| LOD            | Limit of Detection (DoD/DOE)  |     |
| LOQ            | Limit of Quantitation (DoD/DOE)   | 9   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |     |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   | 10  |
| MDL            | Method Detection Limit  |     |
| ML             | Minimum Level (Dioxin)  |     |
| NC             | Not Calculated  |     |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |     |
| PQL            | Practical Quantitation Limit  |     |
| QC             | Quality Control   |     |
| RER            | Relative Error Ratio (Radiochemistry)   |     |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |     |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |     |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |     |

TEFToxicity Equivalent Factor (Dioxin)TEQToxicity Equivalent Quotient (Dioxin)

Client: First Solar Electric LLC Project/Site: Willow Springs

### Job ID: 440-232851-1

# Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority          | Program                     | Identification Number | Expiration Date |
|--------------------|-----------------------------|-----------------------|-----------------|
| Alaska             | State Program               | CA01531               | 06-30-20        |
| Arizona            | State Program               | AZ0671                | 10-14-19 *      |
| California         | LA Cty Sanitation Districts | 10256                 | 06-30-20        |
| California         | State Program               | CA ELAP 2706          | 06-30-20        |
| Guam               | State Program               | Cert. No. 19-005R     | 01-23-20        |
| Hawaii             | State Program               | N/A                   | 01-29-20        |
| Kansas             | NELAP                       | E-10420               | 07-31-20        |
| Nevada             | State Program               | CA015312019-5         | 07-31-19 *      |
| New Mexico         | State Program               | N/A                   | 01-29-20        |
| Oregon             | NELAP                       | 4028                  | 01-29-20        |
| US Fish & Wildlife | Federal                     | 058448                | 07-31-20        |
| USDA               | Federal                     | P330-18-00214         | 07-09-21        |
| Washington         | State Program               | C900                  | 09-03-19 *      |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

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### Client: First Solar Electric LLC

### Login Number: 232851 List Number: 1 Creator: Skinner, Alma D

| Question   | Answer | Comment     |
|--|--------|-------------|
| Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> | True   |             |
| The cooler's custody seal, if present, is intact.  | N/A    | Not present |
| Sample custody seals, if present, are intact.  | N/A    | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with.                             | True   |             |
| Samples were received on ice.  | True   |             |
| Cooler Temperature is acceptable.  | True   |             |
| Cooler Temperature is recorded.  | True   |             |
| COC is present.  | True   |             |
| COC is filled out in ink and legible.  | True   |             |
| COC is filled out with all pertinent information.  | True   |             |
| Is the Field Sampler's name present on COC?  | True   |             |
| There are no discrepancies between the containers received and the COC.                                    | True   |             |
| Samples are received within Holding Time (excluding tests with immediate HTs)                              | True   |             |
| Sample containers have legible labels.   | True   |             |
| Containers are not broken or leaking.  | True   |             |
| Sample collection date/times are provided.   | True   |             |
| Appropriate sample containers are used.  | True   |             |
| Sample bottles are completely filled.  | True   |             |
| Sample Preservation Verified.  | N/A    |             |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs                           | True   |             |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").                            | True   |             |
| Multiphasic samples are not present.   | True   |             |
| Samples do not require splitting or compositing.   | True   |             |
| Residual Chlorine Checked.   | N/A    |             |

Job Number: 440-232851-1

List Source: Eurofins TestAmerica, Irvine

### **Environmental Protection Agency**

in ASTM Standard D-3278-78 (incorporated by reference, see §260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990]

### §261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993]

### §261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

[45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990]

### §261.24 Toxicity characteristic.

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste

### §261.30

itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1—MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC

| THE TOXICITY ONALIACTERISTIC |                                    |           |                                    |  |  |
|------------------------------|------------------------------------|-----------|------------------------------------|--|--|
| EPA HW<br>No. 1              | Contaminant                        | CAS No. 2 | Regu-<br>latory<br>Level<br>(mg/L) |  |  |
| D004                         | Arsenic                            | 7440-38-2 | 5.0                                |  |  |
| D004<br>D005                 | Barium                             | 7440-39-3 | 100.0                              |  |  |
| D003                         | Benzene                            | 71-43-2   | 0.5                                |  |  |
| D006                         | Cadmium                            | 7440-43-9 | 1.0                                |  |  |
| D019                         | Carbon tetrachloride               | 56-23-5   | 0.5                                |  |  |
| D020                         | Chlordane                          | 57-74-9   | 0.03                               |  |  |
| D021                         | Chlorobenzene                      | 108-90-7  | 100.0                              |  |  |
| D022                         | Chloroform                         | 67-66-3   | 6.0                                |  |  |
| D007                         | Chromium                           | 7440-47-3 | 5.0                                |  |  |
| D023                         | o-Cresol                           | 95-48-7   | 4200.0                             |  |  |
| D024                         | m-Cresol                           | 108-39-4  | 4200.0                             |  |  |
| D025                         | p-Cresol                           | 106-44-5  | 4200.0                             |  |  |
| D026                         | Cresol                             |           | 4200.0                             |  |  |
| D016                         | 2,4-D                              | 94-75-7   | 10.0                               |  |  |
| D027                         | 1,4-Dichlorobenzene                | 106-46-7  | 7.5                                |  |  |
| D028                         | 1,2-Dichloroethane                 | 107-06-2  | 0.5                                |  |  |
| D029                         | 1,1-Dichloroethylene               | 75-35-4   | 0.7                                |  |  |
| D030                         | 2,4-Dinitrotoluene                 | 121–14–2  | <sup>3</sup> 0.13                  |  |  |
| D012                         | Endrin                             | 72–20–8   | 0.02                               |  |  |
| D031                         | Heptachlor (and its ep-<br>oxide). | 76–44–8   | 0.008                              |  |  |
| D032                         | Hexachlorobenzene                  | 118-74-1  | <sup>3</sup> 0.13                  |  |  |
| D033                         | Hexachlorobutadiene                | 87-68-3   | 0.5                                |  |  |
| D034                         | Hexachloroethane                   | 67-72-1   | 3.0                                |  |  |
| D008                         | Lead                               | 7439-92-1 | 5.0                                |  |  |
| D013                         | Lindane                            | 58-89-9   | 0.4                                |  |  |
| D009                         | Mercury                            | 7439–97–6 | 0.2                                |  |  |
| D014                         | Methoxychlor                       | 72–43–5   | 10.0                               |  |  |
| D035                         | Methyl ethyl ketone                | 78–93–3   | 200.0                              |  |  |
| D036                         | Nitrobenzene                       | 98-95-3   | 2.0                                |  |  |
| D037                         | Pentrachlorophenol                 | 87-86-5   | 100.0                              |  |  |
| D038                         | Pyridine                           | 110-86-1  | <sup>3</sup> 5.0                   |  |  |
| D010                         | Selenium                           | 7782-49-2 | 1.0                                |  |  |
| D011                         | Silver                             | 7440-22-4 | 5.0                                |  |  |
| D039                         | Tetrachloroethylene                | 127-18-4  | 0.7                                |  |  |
| D015                         | Toxaphene                          | 8001-35-2 | 0.5                                |  |  |
| D040                         | Trichloroethylene                  | 79-01-6   | 0.5                                |  |  |
| D041                         | 2,4,5-Trichlorophenol              | 95-95-4   | 400.0                              |  |  |
| D042                         | 2,4,6-Trichlorophenol              | 88-06-2   | 2.0                                |  |  |
| D017                         | 2,4,5-TP (Silvex)                  | 93-72-1   | 1.0                                |  |  |
| D043                         | Vinyl chloride                     | 75–01–4   | 0.2                                |  |  |

<sup>1</sup> Hazardous waste number.

<sup>a</sup> Chemical abstracts service number. <sup>3</sup>Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory

<sup>4</sup>If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regu-latory level of total cresol is 200 mg/l.

[55 FR 11862, Mar. 29, 1990, as amended at 55 FR 22684, June 1, 1990; 55 FR 26987, June 29, 1990; 58 FR 46049, Aug. 31, 1993; 67 FR 11254, Mar. 13, 2002]

### 40 CFR Ch. I (7-1-04 Edition)

### Subpart D—Lists of Hazardous Wastes

### §261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this subpart by employing one or more of the following Hazard Codes:

| Ignitable Waste               | (I) |
|-------------------------------|-----|
| Corrosive Waste               | (C) |
| Reactive Waste                | (R) |
| Toxicity Characteristic Waste | (E) |
| Acute Hazardous Waste         | (H) |
| Toxic Waste                   | (T) |

Appendix VII identifies the constituent which caused the Administrator to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under parts 262 through 265, 268, and part 270 of this chapter.

(d) The following hazardous wastes listed in §261.31 or §261.32 are subject to the exclusion limits for acutely hazardous wastes established in §261.5: EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986; 55 FR 11863, Mar. 29, 1990]

### §261.31 Hazardous wastes from nonspecific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in appendix IX.

# Request No. 9:

Refer to the Application, paragraph 21. Explain why Telesto, BP Solar, and BP Alternative Energy North America, Inc. were the named entities for documented environmental compliance. Response:

Telesto included BP Solar and BP Alternative Energy North America Inc. in its Application in the spirit of transparency and with the intent to show a good environmental compliance history by not just Telesto but also its parent companies. Telesto and BP Solar are both relatively new entities with little to no operational history, but BP Alternative Energy North American has developed and operated renewable energy projects since 2010 and has a perfect record of environmental compliance.

# Request No. 10:

List the company that will employ the individuals that are or will be responsible for ensuring compliance with the statements in the application and any conditions imposed by the Siting Board during construction and operations of the project.

# Response:

BP Wind Energy North America, Inc. will employ the management team tasked with ensuring that Telesto Energy Project maintains compliance with the statements in the application and any conditions imposed by the Siting Board. BP Wind Energy North America, Inc. has been operating renewable energy projects in the United States since 2007.

# Request No. 11:

Describe whether Telesto applied to PJM Interconnection LLC to be a Capacity Resource or an Energy Resource. If Telesto applied to be a Capacity Resource, state how many Capacity Interconnection Rights is Telesto seeking.

# Response:

Telesto is both an Energy Resource and a Capacity Resource. Telesto is seeking 73.6 MWac capacity interconnection rights.