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

	Responses to siting board stair'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** 

October 13, 2022 Date

#### 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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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.

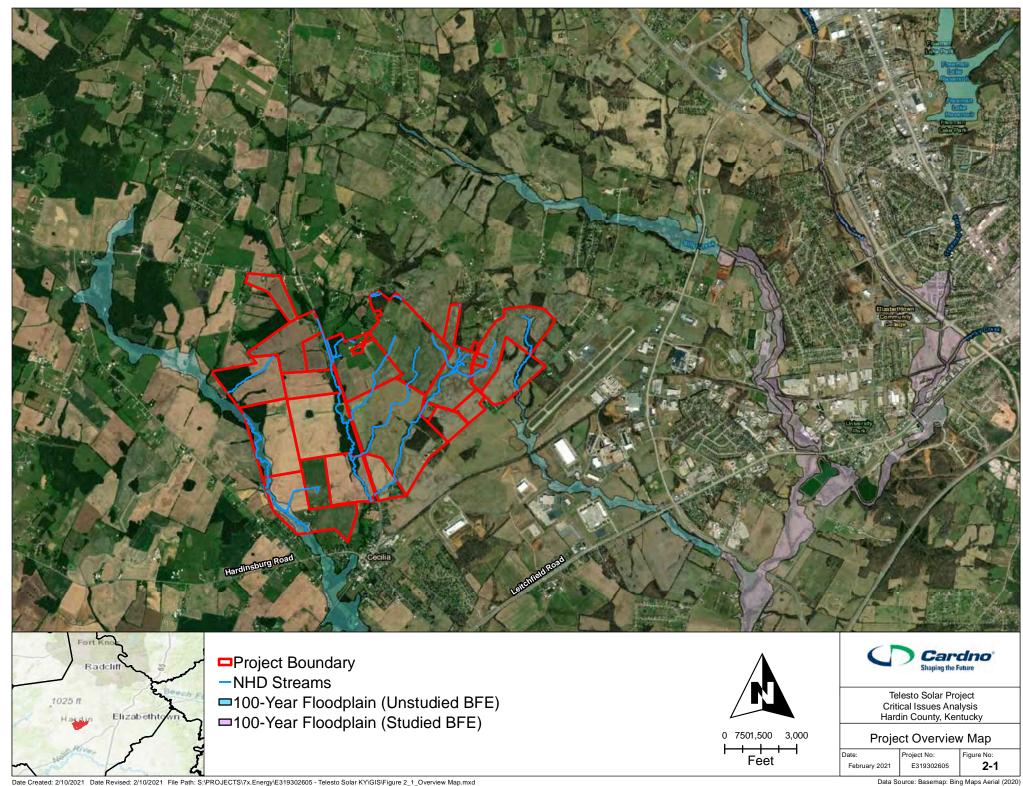
USACE and USEPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- > 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.



# 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 Ecoregion 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.

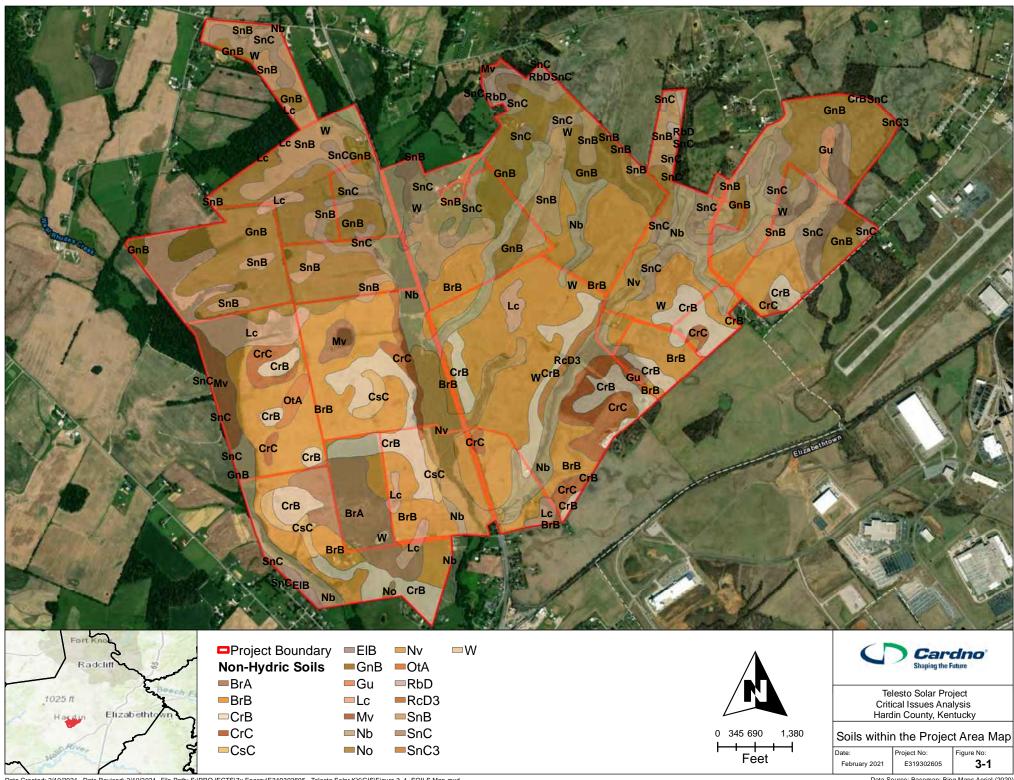
#### 3.2 Soil Series

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.

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

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



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

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

S – Special Concern, D – Deemed in Need of Management, R-Rare, Not State Listed, E-Endangered, T-Threatened, CE-Commercially Exploited

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 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 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.

#### **Hydrology**

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.

#### Soils

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

Stream ID	Flow Type	Stream Length (ft)	Water Depth (In.)	Width at Bankfull (ft)	Substrate	Potentially Jurisdictional (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 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-22	Swale	1914.13	0	3	Loam	No
S-23	Swale	1425.82	0	3	Loam	No
S-24	Ephemeral	1068.6	1	3	Loam	Yes
S-25	Intermittent	1131.69	4	10	Silt/Rock	Yes
S-26	Intermittent	429.85	3	10	Silt/Rock	Yes
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		64,188.29				
Total Non-juris	sdictional	3,958.52				
Total Jurisd		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 quidelines 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.

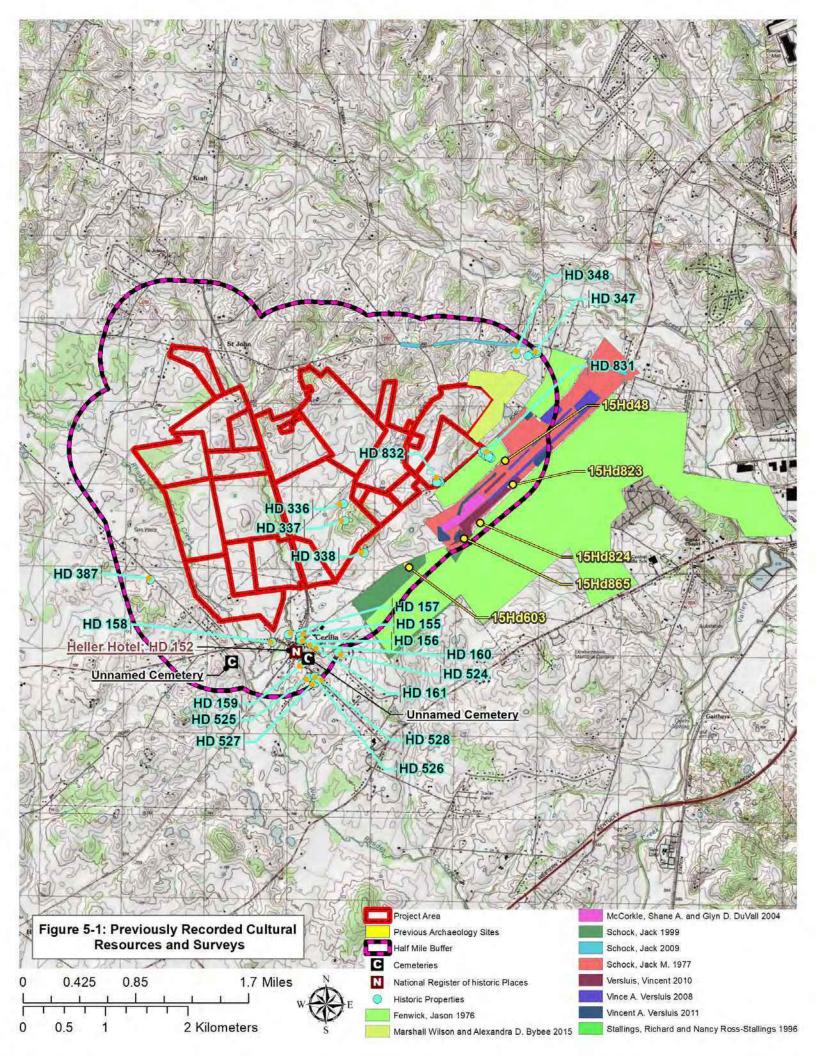


Table 5.4 Recorded Site Number	l archeological sites within ½ mile of the Pr Description	oject Area Cultural Affiliation	National Register Status
15Hd48	Open Habitation without Mounds	Undetermined Prehistoric	Not recorded
15Hd603	Historic Farm/ Residence	Historic Euro-American (1851-1900)	Does not presently meet NR criteria
15Hd823	Historic Farm/ Residence	Historic Euro-American (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

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.

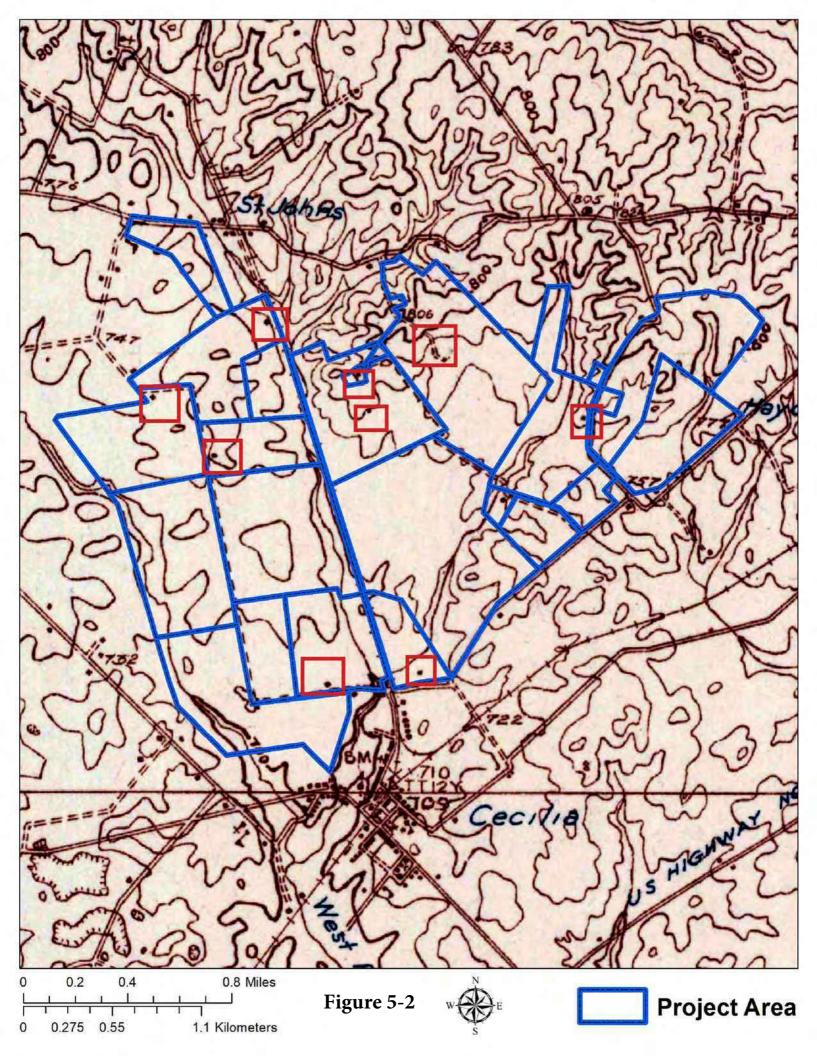
Table 5-5 Recorded historical resources within ½ mile of the Project Area

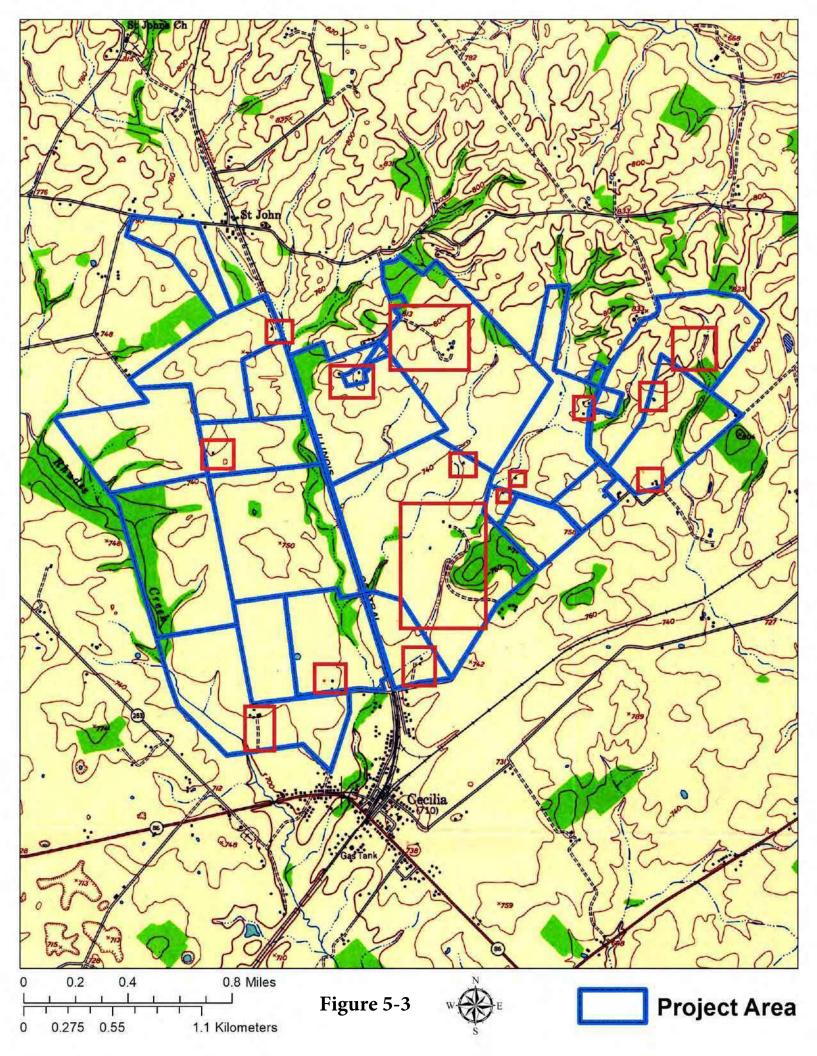
Survey ID	Historic Name (Common Name)	Date Range	Architecture	Function	Status
HD 152	Heller Hotel	1875-1899	Vernacular Turn of Century	Hotel/Inn	National Register
HD 155	Cecilian Bank	1900-1924	Commercial Turn of Century	Commercial/ Professional/Office	Undetermined
HD 156	John Arvin House	1875-1899	Vernacular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

HD 337	Corn Crib	1875-1899	Vernacular Turn of Century	Agricultural Buildings	Undetermined
HD 338	Cabin	1825-1849	Vernacular/ Antebellum	Single Dwelling	Undetermined
HD 347	Brown Singleton House and Farm	1925-1949	Colonial Revival	Single Dwelling; Barns; Domestic Outbuilding	Meets National Register Criteria
HD 348	Corn Crib	1875-1899	Vernacular Turn of Century	Agricultural Buildings	Undetermined
HD 387	M L White House	1875-1899	Vernacular Turn of 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 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 Addington House and Farm	1950-2000	Ranch	Single Dwelling; Garage; Machine Shed; Dairy Barn; Stock Barn; Grain Silo	Meets National Register Criteria
HD 832	Matherly House and Farm	1875-1899	Greek Revival	Single Dwelling; Cistern; Barn; Grain 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  $\frac{1}{2}$ -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  $\frac{1}{2}$ -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.

## 7 References

- Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- Federal Register. 1980. 40 CFR Part 230: Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, Vol. 45, No. 249, pp. 85352-85353, U.S. Government Printing Office.
- F Grossman, D. H., D. Faber-Langendoen, A. S. Weakley, M. Anderson, P. Bourgeron, R. Crawford, K. Goodin, S. Landaal, K. Metzler, K. D. Patterson, M. Pyne, M. Reid, and L. Sneddon. 1998. International classification of ecological communities: terrestrial vegetation of the United States. Volume I. The National Vegetation Classification System: development, status, and applications. The Nature Conservancy, Arlington, Virginia, USA
- Leverett, R.T. 1996. Definitions and history. Pp. 3-17, In M.B. Davis (Ed.). Easter Old Growth Forests: Prospects for Rediscovery and Recovery. Island Press, Washington, DC.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Soil Survey Staff, 2021. Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed February 2021.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Easter Mountains and Piedmont (Version 2.0), ed. J. F. Berkowitz, J.S. Wakeley, R. W. Lichvar, C. V. Noble. ERDC/EL TR-12-9. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish & Wildlife Service (USFWS) IPaC Trust Resources Report (generated February 2021)
- U.S. Fish & Wildlife Service (USFWS) Kentucky Topographic Quadrangles Containing Northern Long-Eared Bat Roost Trees and/or Hibernaculum <a href="https://www.fws.gov/frankfort/pdf/KY">https://www.fws.gov/frankfort/pdf/KY</a> NLEB Quad List.pdf (December 2017)
- Woods, A.J., Omernik, J.M., Martin, W.H., Pond, G.J., Andrews, W.M., Call, S.M, Comstock, J.A., and Taylor, D.D., 2002, Ecoregions of Kentucky (color poster with map, descriptive text, summary tables, and photographs): Reston, VA., U.S. Geological Survey (map scale 1:1,000,000).

Telesto Solar Farm Critical Analysis Report

APPENDIX



WETLAND DETERMINATION DATASHEETS

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

Project/Site: Telesto Solar Project		с	ity/County: Cecil	a/Hardin	Samp	ling Date: 23-Feb-21		
Applicant/Owner: 7x Energy				State: KY	Sampling Po	oint: D-001		
Investigator(s): J. Stelly and C. Hoffn	nan	•	Section, Township,	Range: S	т	R		
Landform (hillslope, terrace, etc.):	cal relief (concave	, convex, non	e): flat	Slope:0.0% /0.0 °				
Subregion (LRR or MLRA): LRR N		 Lat.: 3	7.68103	Long.:	-85.95012	Datum: WGS 1984		
Soil Map Unit Name: Nb - Newark s	ilt loam, 0-2 per				NWI classification			
Are climatic/hydrologic conditions or		·	? Yes ● No C	(If no ex	plain in Remarks.)			
Are Vegetation, Soil	, or Hydrology	significantly		• •	rcumstances" present	yes ● No ○		
Are Vegetation, Soil	, or Hydrology	naturally prob			plain any answers in R	•		
Summary of Findings - At	ach site ma	ap showing sar	npling point	ocations,	transects, imp	ortant features, etc.		
Hydrophytic Vegetation Present?	Yes O No	•						
Hydric Soil Present?	Yes O No	•	Is the Sampled Area		Yes ○ No ●			
Wetland Hydrology Present?	Yes O No	•	within a We	tland?	S O NO O			
Remarks:								
Hydrology								
Wetland Hydrology Indicators:				C	acandary Indicators (min	imum of two required)		
Primary Indicators (minimum of on	e required: chea	ck all that apply)			econdary Indicators (min Surface Soil Cracks (B			
Surface Water (A1)		True Aquatic Plants (E						
High Water Table (A2)		Hydrogen Sulfide Odo			Drainage Patterns (B10)			
Saturation (A3)		Oxidized Rhizospheres	s along Living Roots (C3) Moss Trim Lines (B16)					
☐ Water Marks (B1)		Presence of Reduced						
Sediment Deposits (B2)		Recent Iron Reduction						
Drift deposits (B3)		Thin Muck Surface (C	7)	☐ Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Rem	narks)	Stunted or Stressed Plants (D1)				
☐ Iron Deposits (B5)					Geomorphic Position (	D2)		
Inundation Visible on Aerial Imagery	ı (B7)			L	Shallow Aquitard (D3)			
Water-Stained Leaves (B9)				Microtopographic Relief (D4)				
Aquatic Fauna (B13)					FAC-neutral Test (D5)			
Field Observations: Surface Water Present?  Yes	No <b>●</b>	Depth (inches):						
Water Table Present? Yes		Depth (inches):						
0.1 11 0 0			Wetland Hydrology Present? Yes ○ No ●					
(includes capillary fringe)  Yes		Depth (inches):						
Describe Recorded Data (stream ga	uge, monitoring	well, aerial photos,	previous inspection	ns), if availab	le:			
Remarks:								
No hydro characteristics.								
No flydro characteristics.								

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

Dominant		Sampling Point: D-001			
	Absolute % Cover	Rel.Strat		Dominance Test worksheet:	
1. Acer nigrum	75	78.99	6 FACU	Number of Dominant Species That are OBL, FACW, or FAC:0(A)	
2. Celtis occidentalis	15	15.89	6 FACU	Total Number of Deminent	
3. Ulmus americana	5	5.3%	FACW	Total Number of Dominant Species Across All Strata:1 (B)	
4	0	0.0%	<u> </u>		
5	0	0.0%	<u> </u>	Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)	
6	0	0.0%	<u> </u>	That are OBL, FACW, OF FAC.	
7	0	0.0%	<u> </u>	Prevalence Index worksheet:	
8	0	0.0%	<u> </u>	Total % Cover of: Multiply by:	
Sapling-Sapling/Shrub Stratum (Plot size:)	95	= Total Co	ver	0BL speci es x 1 = 0	
	_	0.0%		FACW species 5 x 2 = 10	
1		0.0%		FAC speci es x 3 =0	
3		0.0%		FACU speciles 90 x 4 = 360	
4		0.0%		UPL species $0 \times 5 = 0$	
5		0.0%		Column Totals:95 (A)370 (B)	
6		0.0%			
7		0.0%		Prevalence Index = B/A = 3.895	
8		0.0%		Hydrophytic Vegetation Indicators:	
9		0.0%		Rapid Test for Hydrophytic Vegetation	
10		0.0%		☐ Dominance Test is > 50%	
		= Total Co		Prevalence Index is ≤3.0 ¹	
Shrub Stratum (Plot size:)		0.0%		Morphological Adaptations 1 (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%		Indicators of hydric soil and wetland hydrology must 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		= Total Co		(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%		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%		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%		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			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, including herbaceous vines, regardless of size, and woody	
1				species, except woody vines, less than approximately 3 ft (1	
2		0.0%	<u> </u>	m) in height.	
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of height.	
4					
5	0 0	0.0%		Hydrophytic	
6		0.0%		Vegetation Present? Yes ○ No ●	
	0	= Total Co	ver	FIGSUIL: 100 - 110 -	
Remarks: (Include photo numbers here or on a separate shee	et.)				

Soil Sampling Point: D-001 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/3 <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 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) Black Histic (A3) ☐ Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampling	<b>Date</b> : 23-Feb-21
Applicant/Owner: 7x Energy				State: KY	,	Sampling Point:	D-002
Investigator(s): J. Stelly and C. Hof	fman		Section, Town	nship, Range: S		т	R
Landform (hillslope, terrace, etc.):			Local relief (co	ncave, convex, r	none):	Slo	ope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR	J		37.68035	Lor	 ng.: -85.95	223	Datum: WGS 1984
Soil Map Unit Name: W - Water			37.00033			zzs classification: Pl	_
Are climatic/hydrologic conditions of	n the site tur	sical for this time of ve	ar? Yes •	No (If no	, explain in F	_	
			ly disturbed?	•			Yes ● No ○
Are Vegetation, Soil	, or Hydrolo					ices" present?	
Are Vegetation  , Soil .	, or Hydrolo	ogy U naturally pr	roblematic?	(If needed,	explain any	answers in Rema	rks.)
Summary of Findings - A	ttach site	map showing sa	ampling po	int location	ns, transe	ects, importa	ant features, etc.
Hydrophytic Vegetation Present?	Yes O	No •					
Hydric Soil Present?	$_{Yes}$ $\bigcirc$	No •	Is the	Sampled Area	Van O Ne	- 🝙	
Wetland Hydrology Present?	Yes $\bigcirc$	No •		a Wetland?			
Remarks:							
Noa.							
I							
Hydrology							
Wetland Hydrology Indicators:					Secondary I	ndicators (minimum	n of two required)
Primary Indicators (minimum of c	ne required;	check all that apply)				Soil Cracks (B6)	
Surface Water (A1)		True Aquatic Plants	s (B14)		Sparsely	y Vegetated Concav	e Surface (B8)
☐ High Water Table (A2)		Hydrogen Sulfide O	odor (C1)		Drainag	e Patterns (B10)	
Saturation (A3) Oxidized Rhizospheres along Living Roots (C3)					Moss Tr	im Lines (B16)	
☐ Water Marks (B1)		Presence of Reduce	ed Iron (C4)		☐ Dry Sea	son Water Table (C	2)
Sediment Deposits (B2)		Recent Iron Reduct	tion in Tilled Soils	(C6)	Crayfish	Burrows (C8)	
☐ Drift deposits (B3)		Thin Muck Surface	(C7)			on Visible on Aerial	Imagery (C9)
☐ Algal Mat or Crust (B4)		Other (Explain in Re	• •			or Stressed Plants	
☐ Iron Deposits (B5)			<b>-</b> ,		Geomor	phic Position (D2)	
☐ Inundation Visible on Aerial Image	ry (B7)					Aquitard (D3)	
☐ Water-Stained Leaves (B9)						pographic Relief (D <sup>2</sup>	1)
Aquatic Fauna (B13)						utral Test (D5)	
Field Observations:							
Surface Water Present? Yes		Depth (inches):					
Water Table Present? Yes	○ No ●	Depth (inches):					(2)
Saturation Present?  (includes capillary frings)  Yes	No ●	Depth (inches):		Wetland Hyd	rology Prese	ent? Yes	No •
(includes capillary fringe)  Describe Recorded Data (stream g			s, previous inst	pections), if avai	ilable:		
, ( <u>(</u> <u>)</u>	3.,	<b>3</b>	.,	,,			
Remarks:							
none.							

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

		Dominant		Sampling Point: D-002
	Absolute % Cover	itonotiut.	Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:0 (A)
2		0.0%		
3		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4		0.0%		
5		0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
_Sapling-Sapling/Shrub Stratum (Plot size:)	0	= Total Cover		0BL speci es x 1 = 0
1.		0.0%		FACW species
2		0.0%		FAC speci es x 3 =
3		0.0%		FACU speci es x 4 =0
4		0.0%		UPL species $\underline{50}$ x 5 = $\underline{250}$
5.		0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
6		0.0%		Prevalence Index = B/A = 5.000
7		0.0%		
8	_	0.0%		Hydrophytic Vegetation Indicators:  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	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%		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%	UPI	Sapling/shrub stratum – Consists of woody plants, excluding
1. Zea mays 2.		0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  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%		Five Vegetation Strata:  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.
	50	= 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 (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%		Hydrophytic Vegetation
	0	= Total Cover	-	Present? Yes No   No
Remarks: (Include photo numbers here or on a separate shee	et.)			
•				

Soil Sampling Point: D-002 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features \_\_\_\_\_ Matrix

(inches)	Color (moist)	%	Color (moist)	%	Type	Loc <sup>2</sup>	Texture	Remarks
0-21	10YR 3/3	100					Loam	
<sup>1</sup> Type: C=Conc	entration. D=Depletio	n. RM=Reduce	ed Matrix, CS=Covere	d or Coated	Sand Grai	ns <sup>2</sup> Locat	ion: PL=Pore Lining. M=Ma	atrix
			•					
Hydric Soil II	ndicators:						Indicators for Proble	matic Hydric Soils <sup>3</sup> :
Histosol (A	<b>\1)</b>		Dark Surface (S	(7)				
	·			•	0) (MIDA :	147 140)	2 cm Muck (A10)	(MLRA 147)
Histic Epip			Polyvalue Below				Coast Prairie Redo	ον (Λ16)
Black Histi	c (A3)		Thin Dark Surfa	ce (S9) (MI	.RA 147, 1	48)	(MLRA 147,148)	W (410)
	Sulfide (A4)						_ ` ,	
			Loamy Gleyed N				Piedmont Floodpla	ain Soils (F19)
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)				C (TF40)
								Surrace (TFT2)
Depleted E	Below Dark Surface (A	11)	Depleted Dark S	Surface (F7)			Other (Explain in	Remarks)
Thick Dark	Surface (A12)		Redox Depressi	ons (F8)				,
					40) (LDD A			
Sandy Muc	ck Mineral (S1) (LRR N	l,	Iron-Manganese	e Masses (F	12) (LRR N	1,		
MLRA 147	, 148)		MLRA 136)					
Sandy Glav	yed Matrix (S4)		Umbric Surface	(F13) (MLF	RA 136, 12	2)		
							<sup>3</sup> Indicators of I	nydrophytic vegetation and
Sandy Red	lox (S5)		Piedmont Flood	plain Soils	(F19) (MLR	A 148)	wetland hyd	rology must be present,
Stripped M	Matrix (S6)		Red Parent Mat	erial (F21)	(MI RΔ 127	147)		sturbed or problematic.
			Rear arent iviat	cital (121)	(IVILION 127	, 177)	dilicas dis	ital bed of problematic.
Stripped iv	latrix (50)							
	yer (if observed):							
Restrictive La								
Restrictive La	yer (if observed):						Hydric Soil Present?	Ves O No •
Restrictive La							Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No •
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●
Restrictive La Type: Depth (inch	yer (if observed):						Hydric Soil Present?	Yes ○ No ●

Project/Site: Telesto Solar Project	City	/County: Cecilia/Hardin	Sampling	<b>Date</b> : 23-Feb-21	
Applicant/Owner: 7x Energy		State: K	/ Sampling Point:	D-003	
Investigator(s): J. Stelly and C. Hoffman	Sec	tion, Township, Range: S	т	R	
Landform (hillslope, terrace, etc.): Flat	Local	relief (concave, convex,	none): flat S	lope: 0.0% / 0.0 °	
Subregion (LRR or MLRA): LRR N	Lat.: 37.6	8135 Lo	ng.: -85.95426	Datum: WGS 1984	
Soil Map Unit Name: Nv - Nolin silt loam, 0-2		-		N/A	
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Yes   No   (If no	, explain in Remarks.)		
Are Vegetation $\ \square$ , Soil $\ \square$ , or Hydro		urbed? Are "Norma	I Circumstances" present?	Yes   No	
Are Vegetation  , Soil , or Hydro	logy	matic? (If needed,	explain any answers in Rem	arks.)	
Summary of Findings - Attach site	e map showing samp	oling point location	ns, transects, import	ant features, etc.	
Hydrophytic Vegetation Present? Yes   •	No O				
Hydric Soil Present? Yes   •	No $\bigcirc$	Is the Sampled Area			
Wetland Hydrology Present? Yes ●	No O	within a Wetland?			
Remarks: Wet-1					
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicators (minimu	m 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 Conca	ve Surface (B8)	
High Water Table (A2)	Hydrogen Sulfide Odor (C	21)	Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizospheres ald	ong Living Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)	Presence of Reduced Iron	1 (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 Aeria	l Imagery (C9)	
Algal Mat or Crust (B4)	Other (Explain in Remark	s)	Stunted or Stressed Plants	s (D1)	
☐ Iron Deposits (B5)			Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)			Shallow Aquitard (D3)		
Water-Stained Leaves (B9)			Microtopographic Relief (D	04)	
Aquatic Fauna (B13)			FAC-neutral Test (D5)		
Field Observations: Surface Water Present?  Yes No	Donth (inches)				
	Depth (inches):				
Water Table Present? Yes No   No	Depth (inches):	Wetland Hyd	rology Present? Yes	No O	
Saturation Present? (includes capillary fringe)  Yes No   No	Depth (inches):		rology i resent.	110 -	
Describe Recorded Data (stream gauge, monit	coring well, aerial photos, pre	vious inspections), if ava	ilable:		
Remarks:					
depressional area in corn field.					
a opi ossional area im osim neral					

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

		Dominant		Sampling Point: D-003
	Absolute % Cover	itonoti at.	Indicator Status	Dominance Test worksheet:
1. Acer rubrum	_60_	70.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
2. Celtis laevigata	15	17.6%	FACW	T. I. N. J. C.
3. Ulmus americana	10	11.8%	FACW	Total Number of Dominant Species Across All Strata: 1 (B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	_	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	95	= Total Cov	er	OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 25 x 2 = 50
1				FAC species
2	0			FACU species $0 \times 4 = 0$
3				
4	0			· ·
5	0	0.0%		Column Totals: <u>85</u> (A) <u>230</u> (B)
6	0			Prevalence Index = B/A = 2.706
7	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 ¹
_Shrub Stratum (Plot size:)		= Total Cov	er	Morphological Adaptations <sup>1</sup> (Provide supporting
1		0.0%		data in Remarks or on a separate sheet)
		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				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%		(7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	0	= Total Cov	er	regardless of height. 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 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%		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
	0	= Total Cov	er	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, including herbaceous vines, regardless of size, and woody
1				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 height.
4				
5	0			Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cov	er	Present? Yes No U
Remarks: (Include photo numbers here or on a separate shee	et.)			
The state of the s	,			

Soil Sampling Point: D-003

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix			Redox Features  Color (moist) % Type 1 Loc2		Tt	Damanka	
(inches) 0-21	Color (moist) 10YR 3/1	80	5YR 4/6	20	C	M	<u>Texture</u> Loam	Remarks
			3110 470			IVI	Loam	
				_				
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I	ndicators:						Indicators for Proble	ematia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Belo		(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TE12)
	Below Dark Surface (A	(11)	Depleted Dark		7)			
	Surface (A12)	,	Redox Depress		•		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR N	N.	Iron-Manganes		(F12) (LRR I	١,		
MLRA 147	, 148)	ν,	MLRA 136)	·	, , ,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and Irology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	, 147)		sturbed or problematic.
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampli	ng Date:	23-Feb-21
Applicant/Owner: 7x Energy				State: KY	Υ	Sampling Poir	_	D-004
Investigator(s): J. Stelly and C. Hoffi	man		Section, Town	nship, Range: S	ŝ	т	R	
Landform (hillslope, terrace, etc.):	Local relief (coi	ncave, convex, r	none	e): flat	Slope:	0.0% / 0.0 °		
Subregion (LRR or MLRA): LRR N	<u>Flat</u>		37.6814	Lor	na.:	-85.95444		atum: WGS 1984
Soil Map Unit Name: Nv - Nolin silt			37.0017			NWI classification:		
Are climatic/hydrologic conditions o	n the site typ	oical for this time of yea	ar? Yes 💿	No O (If no	э, ехр	olain in Remarks.)		
Are Vegetation, Soil	, or Hydrold		y disturbed?			cumstances" present?	Yes	● No ○
Are Vegetation, Soil	, or Hydrolo	ogy 🗌 naturally pr	oblematic?			ain any answers in Re		
Summary of Findings - At	tach site	map showing sa	ampling po	int location	ns, 1	transects, impo	rtant f	eatures, etc.
Hydrophytic Vegetation Present?		No 💿						
Hydric Soil Present?	Yes 🔾	No •		Sampled Area	Voc	s ○ No ●		
Wetland Hydrology Present?	Yes $\bigcirc$	No 💿	within	a Wetland?	res O No O			
Remarks:								
Li-duology								
Hydrology								
Wetland Hydrology Indicators:	. dan al				Sec	condary Indicators (minin		o required)
Primary Indicators (minimum of or	ne required;		24.0			Surface Soil Cracks (B6)		
Surface Water (A1)		True Aquatic Plants			Sparsely Vegetated Concave Surface (B8)			
☐ High Water Table (A2)☐ Saturation (A3)		Hydrogen Sulfide O		2 .1- (02)		Drainage Patterns (B10)	)	
Water Marks (B1)		Oxidized Rhizospher Presence of Reduce		(00IS (C3)		Moss Trim Lines (B16)	~ (C2)	
Sediment Deposits (B2)		Recent Iron Reducti						
Drift deposits (B3)		Thin Muck Surface (		(00)		Saturation Visible on Ae	rial Image	ny (C0)
Algal Mat or Crust (B4)		Other (Explain in Re	• •		$\vdash$	Stunted or Stressed Plan	-	Ty (07)
Iron Deposits (B5)		Uther (Explain in Ke	emarks)		$\Box$	Geomorphic Position (D		
Inundation Visible on Aerial Imager	rv (B7)					Shallow Aquitard (D3)	2)	
Water-Stained Leaves (B9)	<i>,</i>					Microtopographic Relief	(D4)	
Aquatic Fauna (B13)						FAC-neutral Test (D5)	ζ,	
Field Observations:						·		
Surface Water Present? Yes		Depth (inches):						
Water Table Present? Yes	No ●	Depth (inches):						
Saturation Present? (includes capillary fringe) Yes	No 💿	Depth (inches):		Wetland Hyd	irolog	gy Present? Yes	O No	•
Describe Recorded Data (stream ga	auge, monito	pring well, aerial photos	s, previous insp	ections), if ava	ilable	<del></del> e:		
Remarks:								
No hydro characteristics.								

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

		-Species?		Sampling Point: D-004
- (Diet cize:	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
Tree Stratum (Plot size:)				Number of Dominant Species
1 Acer nigrum		78.9%	FACU	That are OBL, FACW, or FAC:
2. Celtis occidentalis	_	15.8%	FACU	Total Number of Dominant
3. Ulmus americana		5.3%	FACW	Species Across All Strata:1 (B)
4		0.0%		Percent of dominant Species
5		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7		0.0%		Prevalence Index worksheet:  Total % Cover of: Multiply by:
8		= Total Cove		
Sapling-Sapling/Shrub Stratum (Plot size:	) — 95	= Total Cove	1	OBL species 0 x 1 = 0
1	0	0.0%		FACW species <u>5</u> x 2 = <u>10</u>
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 x 5 =
5	0	0.0%		Column Totals: <u>95</u> (A) <u>370</u> (B)
6		0.0%		Prevalence Index = B/A = 3.895
7				Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
10		0.0%_		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Total Cove	r	☐ Morphological Adaptations ¹ (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:)		= 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%		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). Sapling stratum – Consists of woody plants, excluding woody
0.,	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less
1	0	0.0%		than 3 in. (7.6 cm) DBH.
2	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:)		= 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	0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0	0.0%		height.
5	0	0.0%		
6.	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No •
Remarks: (Include photo numbers here or on a separate she				<u>[</u>
romanto, tinorado prioto numbro a nel e Ul Ull a seval ale sile	et)			

Soil Sampling Point: D-004 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/3 <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 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) Black Histic (A3) ☐ Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-005		
Investigator(s): J. Stelly and C. Hof	ifman	Section, Township, Range:	S T R		
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °		
Subregion (LRR or MLRA): LRR	N Lat.	: 37.67884 Lo	ong.: -85.9578		
Soil Map Unit Name: BrB - Bedford		0	NWI classification: PFO1A		
Are climatic/hydrologic conditions o		year? Yes  No (If no	o, explain in Remarks.)		
Are Vegetation . , Soil .		,	al Circumstances" present? Yes   No		
Are Vegetation . , Soil .	, or Hydrology 🔲 naturally	problematic? (If needed	, explain any answers in Remarks.)		
Summary of Findings - A	ttach site map showing	sampling point locatio	ns, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes ● No O				
Hydric Soil Present?	Yes   No	Is the Sampled Area	Yes ● No ○		
Wetland Hydrology Present?	Yes ● No ○	within a Wetland?	ites C No C		
Remarks: Wet-2					
Wet 2					
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of c	one required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Plan	nts (B14)	Sparsely Vegetated Concave Surface (B8)		
✓ High Water Table (A2)	Hydrogen Sulfide	Odor (C1)	Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizosp	heres along Living Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)	Presence of Redu	uced Iron (C4)	☐ Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Redu	uction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	☐ Thin Muck Surfac	ce (C7)	☐ Saturation Visible on Aerial Imagery (C9)		
☐ Algal Mat or Crust (B4)	Other (Explain in	• ,	Stunted or Stressed Plants (D1)		
☐ Iron Deposits (B5)		,	Geomorphic Position (D2)		
Inundation Visible on Aerial Image	ery (B7)		Shallow Aquitard (D3)		
✓ Water-Stained Leaves (B9)			Microtopographic Relief (D4)		
Aquatic Fauna (B13)			FAC-neutral Test (D5)		
Field Observations:					
Surface Water Present? Yes					
Water Table Present? Yes	No      Depth (inches):				
Saturation Present? (includes capillary fringe)  Yes	No Depth (inches):	Wetland Hyd	drology Present? Yes   No		
Describe Recorded Data (stream g	gauge, monitoring well, aerial pho	tos, previous inspections), if ava	ailable:		
Remarks:					

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

		Cmaaia			Sampling Point: D-005
Tree Stratum (Plot size:)	Absolute % Cover		rat.	Indicator Status	Dominance Test worksheet:
1. Acer rubrum	60	<b>✓</b> _70	.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
2. Celtis laevigata	15	17	.6%	FACW	Takal Niyashara of Dansiasant
3. Ulmus americana	10	11	.8%_	FACW	Total Number of Dominant Species Across All Strata:1 (B)
4	0	0.	0%		
5	0	0.	0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6		0.	0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0	0.	0%		Prevalence Index worksheet:
8	0	0.	0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	85	= Total (	Cover		0BL speci es x 1 =0
			0%		FACW species
1 2		$\overline{}$	0%		FAC speci es60 x 3 =180
		$\overline{}$	0%		FACU species x 4 =0
3		$\overline{}$	0%		UPL species $0 \times 5 = 0$
4		$\overline{}$	0%		Column Totals: 85 (A) 230 (B)
5			0%		
6 7			0%		Prevalence Index = B/A =
		$\overline{}$	0%		Hydrophytic Vegetation Indicators:
8 9		$\neg$	0%		Rapid Test for Hydrophytic Vegetation
		$\overline{}$	0%		<b>✓</b> Dominance Test is > 50%
0		= Total (			Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)					Morphological Adaptations <sup>1</sup> (Provide supporting
1			0%		data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		$\equiv$	0%		
3		$\neg$	0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		$\neg$	0%		
5			0%		Definition of Vegetation Strata:
6	0	0.	0%		Four Vegetation Strata: 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:)	0	= Total (	Cover		regardless of height.
1			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%		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).
0	0	0.	0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
1	0	0.	0%		than 3 in. (7.6 cm) DBH.
2	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.	0%		height.
5			0%		
6.	0		0%		Hydrophytic Vegetation
<u></u>	0	= Total			Present? Yes No

Soil Sampling Point: D-005

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix			dox Featu		Loc2	Tt	Damanda
(inches) 0-21	<b>Color (moist)</b> 10Y 6/6	<del>%</del> 85	Color (moist) 5YR 7/1	<b>%</b> 15	Tvpe <sup>1</sup>	M	<u>Texture</u> Clay Loam	Remarks
			- JIK ///I				Clay Loan	
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=N	latrix (
Hydric Soil I	ndicators:						Indicators for Probl	ematic Hydric Soils <sup>3</sup> :
Histosol (A	A1)		Dark Surface (	S7)			2 cm Muck (A10)	-
Histic Epip	edon (A2)		Polyvalue Belov	w Surface (	(S8) (MLRA	147,148)		
☐ Black Histi	c (A3)		Thin Dark Surfa	ace (S9) (N	ILRA 147, 1	48)	Coast Prairie Red (MLRA 147,148)	lox (A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Piedmont Floodp	lain Soils (F10)
Stratified I	_ayers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147)	)
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dar	rk Surface (TF12)
Depleted F	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in	
☐ Thick Dark	Surface (A12)		Redox Depress	ions (F8)				,
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	Ν,	Iron-Manganes MLRA 136)	se Masses (	F12) (LRR I	١,		
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	.RA 136, 12	2)		
Sandy Red			Piedmont Floor	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of	hydrophytic vegetation and drology must be present,
Stripped M			Red Parent Ma	terial (F21)	(MLRA 127	, 147)		isturbed or problematic.
Da ataiatica I a								
Type:	yer (if observed):							
Depth (inch	205).						Hydric Soil Present?	Yes ● No ○
· ·	les)						-	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-006
Investigator(s): J. Stelly and C. Ho	ffman	Section, Township, Range: 5	S T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR	N Lat	.: 37.68266 La	ong.: -85.96445
Soil Map Unit Name: Mv - Melvin			NWI classification: PFO1A
Are climatic/hydrologic conditions		year? Yes  No (If no	o, explain in Remarks.)
Are Vegetation, Soil		,	al Circumstances" present? Yes  No
Are Vegetation , Soil .		-	explain any answers in Remarks.)
Summary of Findings - A	Attach site map showing	sampling point locatio	ns, 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?	res © NO O
Remarks: Wet-3			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
	one required; check all that apply)		Surface Soil Cracks (B6)
✓ Surface Water (A1)	True Aquatic Pla		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	☐ Hydrogen Sulfide	• •	☐ Drainage Patterns (B10)
Saturation (A3)		pheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Red	• •	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Red	uction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface	ce (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 Image	ery (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)	: 6	
	· · ·		
0.1 11 0. 10		:0 Wetland Hyd	drology Present? Yes   No
(includes capillary fringe) Yes	O No Depth (inches)	:	
Describe Recorded Data (stream of	gauge, monitoring well, aerial pho	tos, previous inspections), if ava	ailable:
Remarks:			

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

		Dominant		Sampling Point: D-006
	Absolute % Cover	itonotiut.	Indicator Status	Dominance Test worksheet:
1 . Acer rubrum	60	70.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
2. Celtis laevigata	15	17.6%	FACW	T. I. N. J. C.
3. Ulmus americana	10	11.8%	FACW	Total Number of Dominant Species Across All Strata: 1 (B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	_	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	- 25	= Total Cove	r	OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 25 x 2 = 50
1				FAC species
2	0	0.0%_		FACU species $0 \times 4 = 0$
3	0			
4	0			· ·
5	0	0.0%		Column Totals: <u>85</u> (A) <u>230</u> (B)
6	0	0.0%		Prevalence Index = B/A = <u>2.706</u>
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 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%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6				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:)	0	= Total Cove	r	regardless of height. 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			Woody vines – Consists of all woody vines greater than 3.28 ft 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 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
	0	= Total Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants,
	0	0.0%		including herbaceous vines, regardless of size, and woody
1				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 height.
4		0.0%		-
5		0.0%		Hydrophytic
6	0	0.0%_		Vegetation Present? Yes No
	0	= Total Cove	er	FIGSCHI: 100 - 110 -
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil Sampling Point: D-006

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or cor	nfirm the a	absence of indicators.)	
Depth	Matrix			dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	Texture	Remarks
0-21	10YR 3/1		5YR 4/6		C	M	Loam	
				-				
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I	ndicators:						Indicators for Proble	matia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Below		(S8) (MLRA	147,148)	2 cm Muck (A10) (	MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redo	k (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	(540)
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TF12)
	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	
	Surface (A12)	,	✓ Redox Depress	sions (F8)			Other (Explain in F	eriiai ks)
	ck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	se Masses (	(F12) (LRR I	١,		
	•		Umbric Surface	e (F13) (MI	RA 136, 12	2)		
Sandy Gleg	yed Matrix (S4)		☐ Piedmont Floor				3 Indicators of h	ydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hydr	ology must be present, turbed or problematic.
Stripped iv	10111 (30)		Red Parent Wa	iteriai (FZ I)	(IVILKA 127	, 147)	unless dis	dibed of problematic.
Restrictive La	yer (if observed):							
Туре:								
Depth (inch	nes):						Hydric Soil Present?	Yes ● No ○
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hard	in	Sampling Date	≈ 23-Feb-21
Applicant/Owner: 7x Energy		State:	KY	Sampling Point:	D-007
Investigator(s): J. Stelly and C. Hoffm	nan	Section, Township, Range	e: <b>S</b>	т	R
Landform (hillslope, terrace, etc.):		Local relief (concave, conv	ex, none):	Slope:	0.0%/0.0_ °
Subregion (LRR or MLRA): LRR N	Lat.:	37.68261	Long.: -85.96	374	Datum: WGS 1984
Soil Map Unit Name: BrB - Bedford				classification: N/A	
Are climatic/hydrologic conditions on	the site typical for this time of you	ear? Yes 💿 No 🔾 (I	f no, explain in l		
Are Vegetation, Soil	, or Hydrology significant	tly disturbed? Are "No	rmal Circumstar	nces" present? Yes	s • No O
Are Vegetation . , Soil .	, or Hydrology $\Box$ naturally p	problematic? (If need	led, explain any	answers in Remarks.	)
Summary of Findings - Att		sampling point locat	ions, trans	ects, important	features, etc.
Hydrophytic Vegetation Present?	Yes O No 💿				
Hydric Soil Present?	Yes O No 💿	Is the Sampled Are			
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	, 163 - 144		
Remarks:					
Hydrology					
Wetland Hydrology Indicators:			Secondary I	ndicators (minimum of t	wo required)
Primary Indicators (minimum of one				Soil Cracks (B6)	
Surface Water (A1)	☐ True Aquatic Plant			y Vegetated Concave Su	rface (B8)
High Water Table (A2)	Hydrogen Sulfide			e Patterns (B10)	
Saturation (A3)		neres along Living Roots (C3)		im Lines (B16)	
☐ Water Marks (B1) ☐ Sediment Deposits (B2)	Presence of Reduc			son Water Table (C2)	
Drift deposits (B3)		ction in Tilled Soils (C6)		Burrows (C8)	~~~ (CO)
Algal Mat or Crust (B4)	☐ Thin Muck Surface	• •		on Visible on Aerial Imag or Stressed Plants (D1)	gery (C9)
Iron Deposits (B5)	Other (Explain in F	Remarks)		phic Position (D2)	
Inundation Visible on Aerial Imagery	u (R7)			Aquitard (D3)	
Water-Stained Leaves (B9)	, (67)			pographic Relief (D4)	
Aquatic Fauna (B13)				utral Test (D5)	
Field Observations:				and rest (be)	
Surface Water Present? Yes	No • Depth (inches):				
Water Table Present? Yes	No Depth (inches):				
Saturation Present? (includes capillary frings)  Yes	No Depth (inches):	Wetland	Hydrology Prese	ent? Yes O N	o •
(includes capillary fringe)  Describe Recorded Data (stream gainst a stream ga	• • • • •	os, previous inspections), if	available:		
, ,		7, 7,			
Remarks:					
none.					

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

		-Species? -		Sampling Point: D-007
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC: (A)
2	0	0.0%		<b></b>
3		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
		0.0%		Species Across All Strata:1 (B)
4				Demonstration and Consider
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		1
2	_	0.0%		FAC species $0 \times 3 = 0$
<del></del>		0.0%		FACU speci es
3				UPL species $\frac{50}{100} \times 5 = \frac{250}{100}$
4	0	0.0%		
5	0	0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
		0.0%		D   1   1   1   1   1   1   1   1   1
6		$\neg$		Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3		0.0%		1 Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Strate
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		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 Cover		regardless of height.
1. Zea mays	50	<b>1</b> 00.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		0.0%		
2				Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3	0			
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
	0			
6				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%		diameter at breast height (DBH).
		$\neg$		Sapling stratum – Consists of woody plants, excluding woody
10	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
		= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	50	- Total Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
• •		0.004		species, except woody vines, less than approximately 3 ft (1
2				m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
	0	0.0%		
5				Hydrophytic
6	0	0.0%		Vegetation Present? Yes No
	0	= Total Cover		Present? Yes V NO V
5				
Remarks: (Include photo numbers here or on a separate sheet	et.)			

Depth		Matrix		Re	dox Featu	ires		indicators.			
(inches)		(moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Rem	arks	
0-21	10YR	3/3	100					Loam			
	B										
			-								
	-										
<sup>1</sup> Type: C=Cond	centration.	D=Depletio	n. RM=Redu	uced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix		
Hydric Soil I				<u> </u>				Indicators for Proble		Seile 3.	
Histosol (A				Dark Surface (	S7)					, JUIIS ;	
	pedon (A2)			Polyvalue Belo	w Surface (	(S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)		
Black Hist				Thin Dark Surf				Coast Prairie Redo	x (A16)		
	Sulfide (A4	1)		Loamy Gleyed			,	(MLRA 147,148)			
	Layers (A5)			Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)		
	k (A10) (LR			Redox Dark Su				Very Shallow Dark	Surface (TF1	2)	
		Surface (A	11)	Depleted Dark		7)				2)	
_	k Surface (/		,	Redox Depress				Other (Explain in	Remarks)		
	•	(S1) (LRR N	1,	☐ Iron-Manganes		(F12) (LRR I	N,				
MLRA 147	', 148)			MLRA 136)	- (F12) (MI	DA 127 12	12)				
	yed Matrix	(S4)		Umbric Surface				<sup>3</sup> Indicators of I	nydrophytic ve	getation and	
Sandy Red				☐ Piedmont Floo				wetland hyd	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
☐ Stripped N	Matrix (S6)			Red Parent Ma	iterial (F21)	) (MLRA 127	7, 147)	unless dis	turbed or prol	olematic.	
Restrictive La	ayer (if ob	served):									
Type:											
Depth (inch	hes):							Hydric Soil Present?	Yes 🔾	No 💿	
Remarks:											

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date	te: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point:	D-008
Investigator(s): J. Stelly and C. Hoffm	nan	Section, Township, Range: S	т	R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope	e: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N		37.68329 <b>Lo</b>	ng.: -85.95945	Datum: WGS 1984
Soil Map Unit Name: BrB - Bedford s		37.00327	NWI classification: N/A	Datum. Mee 1701
·		ar? Yes   No   (If no		
Are climatic/hydrologic conditions on		•	o, explain in Remarks.)	es   No
Are Vegetation, Soil			Il Circumstances" present?	ES C INO C
Are Vegetation U , Soil U	, or Hydrology	roblematic? (If needed,	explain any answers in Remarks	i.)
Summary of Findings - Att	ach site map showing s	ampling point location	ns, transects, importan	t features, etc.
Hydrophytic Vegetation Present?	Yes   No			
Hydric Soil Present?	Yes ● No ○	Is the Sampled Area		
Wetland Hydrology Present?	Yes ● No ○	within a Wetland?	Yes ● No ○	
Remarks:				
Wet-4				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of	two required)
Primary Indicators (minimum of one	e required; check all that apply)		Surface Soil Cracks (B6)	
Surface Water (A1)	True Aquatic Plants	s (B14)	Sparsely Vegetated Concave S	urface (B8)
High Water Table (A2)	Hydrogen Sulfide O	dor (C1)	Drainage Patterns (B10)	
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)	Presence of Reduce	ed Iron (C4)	Dry Season Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduct	tion in Tilled Soils (C6)	Crayfish Burrows (C8)	
☐ Drift deposits (B3)	Thin Muck Surface	(C7)	Saturation Visible on Aerial Im-	agery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	emarks)	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				
Water Table Present? Yes	No   Depth (inches):		Irology Present? Yes	No O
Saturation Present? (includes capillary fringe)  Yes	No Depth (inches):	Wetland Hyd	Irology Present? Yes ● I	NO U
Describe Recorded Data (stream gau	uge, monitoring well, aerial photo	s, previous inspections), if ava	ilable:	
Remarks:				

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

		-Species? -		Sampling Point: D-008
	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
		0.0%		Number of Dominant Species
1				That are OBL, FACW, or FAC:1 (A)
2		0.0%		Total Number of Dominant
3		0.0%		Species Across All Strata: 1 (B)
4	_	0.0%		openios ria oss ria otidid.
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0	0.0%		That the obe, thew, of the
7	0	0.0%		Prevalence Index worksheet:
8	_	0.0%		Total % Cover of: Multiply by:
0				
Sapling-Sapling/Shrub Stratum (Plot size:	)	= Total Cover		0BL speci es 0 x 1 = 0
	•	0.004		FACW species
1				FAC speci es x 3 =
2	0	0.0%		
3	0	0.0%		FACU species $0 \times 4 = 0$
4	_	0.0%		UPL species $0 \times 5 = 0$
				Column Totals: 75 (A) 150 (B)
5	0			Cordina locals
6	0	0.0%		Prevalence Index = B/A = 2.000
7	0	0.0%		Hadron badis Variables Indicators
8		0.0%		Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		
Shrub Stratum (Plot size:)				Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1		0.0%		l <u> </u>
2		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Strate.
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		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:)		= Total Cover		-
1. Cyperus esculentus	75	<b>✓</b> 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.
		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants,
2				regardless of size, and all other plants less than 3.28 ft tall.
3		0.0%		
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0	0.0%		in neight.
	0	0.0%		
6				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).
10		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			l ' '
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	75	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
		□ a aa∉		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
	0	0.0%		height.
4				
5		0.0%		Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover		Present? Yes No
		20.01		l
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil Sampling Point: D-008

Depth (inches)	
17	
<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 Problematic Hydric Soils 3:	
Histosol (A1)  Dark Surface (S7)  2 cm Muck (A10) (MLRA 147)	
☐ Histic Epipedon (A2) ☐ Polyvalue Below Surface (S8) (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)	
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)	
☐ Thick Dark Surface (A12)	
☐ Sandy Muck Mineral (S1) (LRR N, ☐ Iron-Manganese Masses (F12) (LRR N,	
MLRA 136)	
MLRA 147, 148) MLRA 136)	
MLRA 147, 148)  MLRA 136)  Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  "Indicators of hydrophytic vegetation and wetland hydrology must be present,"	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)  Sandy Redow (F5)  Producing Soils (F19) (MLRA 149)  Indicators of hydrophytic vegetation and	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  MLRA 136, 122)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Wind 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Umbric Surface (F13) (MLRA 148)  Verifications of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Wind 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Umbric Surface (F13) (MLRA 148)  Verifications of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: KY	Sampling Point: D-009		
Investigator(s): J. Stelly and C. Hoffi	man	Section, Township, Range: S	T R		
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, no	one): Slope:0.0% /0.0 °		
Subregion (LRR or MLRA): LRR N	La	- t.: 37.68316 <b>Lon</b> e	g.: -85.95923 <b>Datum</b> : WGS 1984		
Soil Map Unit Name: BrB - Bedford			NWI classification: N/A		
Are climatic/hydrologic conditions of		year? Yes O No (If no,	explain in Remarks.)		
Are Vegetation, Soil			Circumstances" present? Yes   No		
Are Vegetation $\square$ , Soil $\square$	, or Hydrology   naturall	y problematic? (If needed, e	xplain any answers in Remarks.)		
Summary of Findings - At	tach site map showing	sampling point location	s, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes O No 💿				
Hydric Soil Present?	Yes ○ No •	Is the Sampled Area	Yes ○ No ●		
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	res O NO O		
Remarks:		<u> </u>			
Hydrology					
Wetland Hydrology Indicators:			Coopedary Indicators (minimum of two required)		
Primary Indicators (minimum of or	ne required: check all that apply	· )	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Pla		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfid		Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizos	pheres along Living Roots (C3)	Moss Trim Lines (B16)		
☐ Water Marks (B1)	Presence of Rec		Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Rec	duction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	☐ Thin Muck Surfa	ace (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain i	n Remarks)	Stunted or Stressed Plants (D1)		
☐ Iron Deposits (B5)			Geomorphic Position (D2)		
Inundation Visible on Aerial Imager	ry (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	١٠			
Water Table Present? Yes		<del></del>			
0		Wetland Hydro	ology Present? Yes O No 💿		
(includes capillary fringe) Yes					
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	otos, previous inspections), if availa	able:		
Remarks:					
none.					

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

		Dominant		Sampling Point: D-009
	Absolute % Cover	itonoti at.	Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:1 (A)
2		0.0%		
3		0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4		0.0%		(b)
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(Diet size)	0	= Total Cove	r	0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)		0.0%		FACW species
1	_			FAC speci es x 3 =
2		0.0%		FACU species
3		0.0%		UPL species $0 \times 5 = 0$
4		0.0%		Column Totals: 65 (A) 230 (B)
5		0.0%		
6		0.0%		Prevalence Index = B/A = 3.538
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9		0.0%		Dominance Test is > 50%
10				Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Total Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting
1				data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2				
3		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%		
5				Definition of Vegetation Strata:
6				Four Vegetation Strata:  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:)	0	= Total Cove	r	regardless of height.  Sapling/shrub stratum – Consists of woody plants, excluding
1. Echinochioa crusgalli	50	76.9%	FACU	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				Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5		0.0%_		
6		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				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				vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	65		1	Herb stratum – Consists of all herbaceous (non-woody) plants,
1				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 height.
4	0			
5		0.0%		Hydrophytic
6	0	0.0%		Vegetation V
	0	= Total Cove	er	Present? Yes V No V
Remarks: (Include photo numbers here or on a separate shee	et.)			

Depth		Matrix		Re	dox Featu	ıres					
(inches)	Color	(moist)	_%	Color (moist)	%	Tvpe 1	Loc2	Texture	Rem	narks	
0-21	10YR	3/3	100					Loam			
	-										
	-										
<sup>1</sup> Type: C=Cond	centration.	D=Depletio	n. RM=Redu	iced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Locat	tion: PL=Pore Lining. M=I	<b>V</b> atrix		
Hydric Soil I								Indicators for Prob		- Caila 3.	
Histosol (A				Dark Surface (	S7)					C 30115 ":	
	pedon (A2)			Polyvalue Belo	,	'S8) (MI RA	147 148)	2 cm Muck (A10	) (MLRA 147)		
Black Histi				Thin Dark Surf				Coast Prairie Re	(61A) xob		
	Sulfide (A4	`					40)	(MLRA 147,148)			
	Layers (A5)			Loamy Gleyed		1		Piedmont Flood			
				☐ Depleted Matri ☐ Redox Dark Su				(MLRA 136, 147			
2 cm Mucl					. ,	<b>7</b> \		Very Shallow Da		2)	
	Below Dark		11)	Depleted Dark		/)		Other (Explain in Remarks)			
	k Surface (A			Redox Depress		(E40) (LDD I					
Sandy Mu MLRA 147	ck Mineral ( 7. 148)	(S1) (LRR N	l,	☐ Iron-Manganes MLRA 136)	se Masses (	F12) (LRR I	V,				
	yed Matrix	(S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)				
Sandy Red		(0.)		Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
Stripped N				Red Parent Ma							
этпрреч п	watiix (50)			Red I dient wa	iteriai (i 2 i)	(IVILIVA 12)	, 147)	uriless (		biernatic.	
Restrictive La	ayer (if ob	served):									
Type:											
Depth (inch	hes):							Hydric Soil Present?	Yes 🔾	No •	
Remarks:											

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: K	Sampling Point: D-010		
Investigator(s): J. Stelly and C. Hoffi	man man	Section, Township, Range: S	Б Т R		
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, i	none): Slope:0.0% /0.0 °		
Subregion (LRR or MLRA): LRR N	l La	- t.: 37.6835 <b>Lo</b> i	ng.: -85.96046		
Soil Map Unit Name: Nb - Newark	silt loam, 0-2 percent slopes.		NWI classification: N/A		
Are climatic/hydrologic conditions o	on the site typical for this time of	fyear? Yes   No (If no	o, explain in Remarks.)		
Are Vegetation, Soil			Il Circumstances" present? Yes ● No ○		
Are Vegetation . , Soil .	, or Hydrology 🗌 naturall	ly problematic? (If needed,	explain any answers in Remarks.)		
Summary of Findings - At	tach site map showinç	g sampling point location	ns, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes O No 💿				
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area			
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	163 C NO C		
Remarks:					
Hydrology					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	ne required: check all that apply	v)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Pl		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfic		Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizos	spheres along Living Roots (C3)	Moss Trim Lines (B16)		
☐ Water Marks (B1)		duced Iron (C4)	Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Re	duction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	Thin Muck Surfa	ace (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 Imager	ry (B7)		Shallow Aquitard (D3)		
Water-Stained Leaves (B9)			Microtopographic Relief (D4)		
Aquatic Fauna (B13)  Field Observations:			FAC-neutral Test (D5)		
Surface Water Present? Yes	No Depth (inches	s):			
Water Table Present? Yes	No Depth (inches				
Saturation Present?  (includes capillary frings)  Yes	1, 1	Wetland Hyd	Irology Present? Yes ○ No •		
(includes capillally inflige)			llable		
Describe Recorded Data (stream ga	auge, monitoring weil, aenai pri	lotos, previous irispections), ir ava	nable.		
Remarks:					
none.					

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

		Dominant	Sampling Point: D-010	
Tree Stratum (Plot size:)	Absolute % Cover	-Species? Rel.Strat. Cover Indicator Status	Dominance Test worksheet:	
1		0.0%	Number of Dominant Species That are OBL, FACW, or FAC:	
2	r	0.0%		
3	r	0.0%	Total Number of Dominant Species Across All Strata: 2 (B)	
4	ſ	0.0%		
5	1	0.0%	Percent of dominant Species	
6		0.0%	That Are OBL, FACW, or FAC: 50.0% (A/B)	
7	_ [	0.0%	Prevalence Index worksheet:	
8.		0.0%	Total % Cover of: Multiply by:	
	0 =	Total Cover	0BL species x 1 =	
Sapling-Sapling/Shrub Stratum (Plot size:	)	_	FACW species 15 x 2 = 30	
1	0		FAC species	
2	0		·	
3	0[		FACU species $\underline{50}$ x 4 = $\underline{200}$	
4			UPL species $0 \times 5 = 0$	
5			Column Totals: <u>65</u> (A) <u>230</u> (B)	
6	1		Prevalence Index = B/A =3.538_	
7		0.0%	Hydrophytic Vegetation Indicators:	
8	1	0.0%	Rapid Test for Hydrophytic Vegetation	
9	0	0.0%	Dominance Test is > 50%	
0		0.0%	Prevalence Index is ≤3.0 ¹	
Shrub Stratum (Plot size:)		Total Cover		
1	0	0.0%	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
		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	ſ		Four Vegetation Strata:	
6		0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in.	
7			(7.6 cm) or more in diameter at breast height (DBH),	
Herb Stratum (Plot size:)		Total Cover	regardless of height.  Sapling/shrub stratum – Consists of woody plants, excluding	
1. Echinochioa crusgalli		<b>✓</b> 76.9% FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
2. Cyperus esculentus	15	<b>✓</b> 23.1% FACW	Herb stratum - Consists of all herbaceous (non-woody) plants,	
3			regardless of size, and all other plants less than 3.28 ft tall.	
4	0		Woody vines – Consists of all woody vines greater than 3.28 ft in height.	
5	0		an noight	
6		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).	
0	0	0.0%	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
1	0	0.0%	than 3 in. (7.6 cm) DBH.	
2	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:)	65=	Total Cover	Herb stratum – Consists of all herbaceous (non-woody) plants,	
1	о [	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	1	0.0%	Hydrophytic	
		ı U.U%	Vegetation Present?  Yes No   No	
6		= Total Cover	Present? Yes O No •	

Soil Sampling Point: D-010 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/3 <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 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) Black Histic (A3) ☐ Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-011
Investigator(s): J. Stelly and C. Hot	offman	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °
Subregion (LRR or MLRA): LRR	N Lat	.: 37.68391 Lo	ong.: -85.96002 Datum: WGS 1984
Soil Map Unit Name: Nb - Newark			NWI classification: PFO1A
Are climatic/hydrologic conditions		year? Yes  No (If no	o, explain in Remarks.)
Are Vegetation, Soil		•	al Circumstances" present? Yes   No
Are Vegetation . , Soil .	, or Hydrology	problematic? (If needed	explain any answers in Remarks.)
Summary of Findings - A	Attach site map showing	sampling point locatio	ns, 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?	Tes C No C
Remarks: Wet-5			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o	one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Pla	nts (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfide	e Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosp	pheres along Living Roots (C3)	Moss Trim Lines (B16)
☐ Water Marks (B1)	Presence of Red	uced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Red	uction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surfa	ce (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Image	ery (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	.,,		drology Present? Yes   No
Saturation Present? (includes capillary fringe)  Yes	O No Depth (inches)	:	urorogy Fresent:
Describe Recorded Data (stream of	gauge, monitoring well, aerial pho	otos, previous inspections), if ava	ailable:
Remarks:			
nomano.			

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

		-Species? -		Sampling Point: <u>D-011</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
4	40	<b>Cover</b> 70.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
1. Acer rubrum 2. Celtis laevigata		17.6%	FACW	That are OBL, FACW, or FAC: (A)
3. Ulmus americana		11.8%	FACW	Total Number of Dominant
4		0.0%		Species Across All Strata:1(B)
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8.		0.0%		Total % Cover of: Multiply by:
	05	= Total Cover		0BL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 25 x 2 = 50
1	0	0.0%		FAC species60 x 3 =180
2		0.0%		FACU species $0 \times 4 = 0$
3	_	0.0%		UPL species $0 \times 5 = 0$
4		0.0%		Column Totals: <u>85</u> (A) <u>230</u> (B)
5		0.0%		
6		0.0%		Prevalence Index = B/A = 2.706
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9		0.0%		✓ Dominance Test is > 50%
0		= Total Cover		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)				Morphological Adaptations 1 (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%		Indicators of hydric soil and wetland hydrology must 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				(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%		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%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		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				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
0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1		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, 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 height.
4	0_	0.0%		-
5		0.0%		Hydrophytic
6	0_	0.0%		Vegetation Present?  Yes  No
	0	= Total Cove	r	11000111
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil Sampling Point: D-011

Profile Descri		the depth r	absence of indicators.)					
Depth	Matrix			Redox Features or (moist) % Type 1 Loc2		Tt	Damanta	
(inches) 0-21	Color (moist) 10YR 3/1	80	Color (moist) 5YR 4/6	<del>%</del> 20	C	M	<u>Texture</u> Loam	Remarks
			3110 470			IVI	Loan	
				_				
	-						-	
							,	
							,	
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I	ndicators:						Indicators for Proble	amatia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				-
Histic Epip			Polyvalue Belo		(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TE12)
	Below Dark Surface (A	(11)	Depleted Dark		7)			
	Surface (A12)	,	Redox Depress		•		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR N	N.	Iron-Manganes		(F12) (LRR I	١,		
MLRA 147	, 148)	ν,	MLRA 136)	•		•		
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	3 Indicators of I	hydrophytic vegetation and Irology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	, 147)		sturbed or problematic.
				<u> </u>		<u> </u>		
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						.,	105 0 140 0
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21				
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-012				
Investigator(s): J. Stelly and C. Hoffr	man	Section, Township, Range: S	S T R				
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °				
Subregion (LRR or MLRA): LRR N	Lat	.: 37.68474 <b>Lo</b>	ing.: -85.96036 Datum: WGS 1984				
Soil Map Unit Name: Nb - Newark s		0.100.17	NWI classification: N/A				
Are climatic/hydrologic conditions or		year? Yes  No (If no	o, explain in Remarks.)				
Are Vegetation, Soil		•	al Circumstances" present? Yes  No				
Are Vegetation, Soil		•	explain any answers in Remarks.)				
Summary of Findings - At	tach site map showing	sampling point location	ns, transects, important features, etc.				
Hydrophytic Vegetation Present?	Yes ○ No •						
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ○ No ●				
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	163 - 140 -				
Remarks:		L					
Hydrology							
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of or	ne required; check all that apply)	)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Pla		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide		☐ Drainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizosp	heres along Living Roots (C3) Moss Trim Lines (B16)					
☐ Water Marks (B1)	Presence of Red	iced Iron (C4)					
Sediment Deposits (B2)	Recent Iron Red	uction in Tilled Soils (C6)	Crayfish Burrows (C8)				
Drift deposits (B3)	Thin Muck Surface	ce (C7)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)				
☐ Iron Deposits (B5)			Geomorphic Position (D2)				
Inundation Visible on Aerial Imager	y (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							
C. I. II. D. 10		Wetland Hyd	drology Present? Yes ○ No •				
(includes capillary fringe)  Yes							
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	itos, previous inspections), if ava	illable:				
Domarks							
Remarks:  No hydro characteristics.							
No figuro characteristics.							

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

		C			Sampling Point: D-012
Tree Stratum (Plot size:)	Absolute % Cover	Rel	ecies? - .Strat. /er	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	75	<b>_</b> _	78.9%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:
2. Celtis occidentalis	15		15.8%	FACU	T. I.
3. Ulmus americana	5		5.3%	FACW	Total Number of Dominant Species Across All Strata: 1 (B)
4	0		0.0%		
5			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:0.0% (A/B)
6			0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	, 95	= Tot	al Cover		0BL species <u>0</u> x 1 = <u>0</u>
			0.0%		FACW species <u>5</u> x 2 = <u>10</u>
1		H-			FAC species x 3 =0
2		H-	0.0%		FACU species 90 x 4 = 360
3		<u> </u>	0.0%		UPL speci es $0 \times 5 = 0$
4		H-	0.0%		Col umn Total s: 95 (A) 370 (B)
5		H-	0.0%		Column locals.
6	-		0.0%		Prevalence Index = B/A = 3.895
7		<del> </del> -	0.0%		Hydrophytic Vegetation Indicators:
8	_	H-	0.0%		Rapid Test for Hydrophytic Vegetation
9		Η_	0.0%		☐ Dominance Test is > 50%
0		Ш_	0.0%		☐ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Tot	al Cover		☐ Morphological Adaptations ¹ (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		0.0%		Definition of Vegetation Strata:
6.			0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	0	= Tot	al Cover		regardless of height.
			0.0%		Sapling/shrub stratum – Consists of woody plants, excluding
1		П-	0.0%	-	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2	0	<u> </u>	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		П-	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
4 5			0.0%		in height.
5 6			0.0%		
		П-	0.0%		Five Vegetation Strata:
7 8.		П-	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		H-	0.0%		Sapling stratum – Consists of woody plants, excluding woody
0	0	<del> </del>	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1		<u> </u> -	0.0%		Shrub stratum – Consists of woody plants, excluding woody
2		 - Tot	al Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		_ 100			Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1		<u> </u>	0.0%		species, except woody vines, less than approximately 3 ft (1
2	0	<u> </u>	0.0%		m) in height.
3		<u> </u>	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4			0.0%		
5		닏_	0.0%		Hydrophytic
6	0	$\sqcup_{-}$	0.0%		Vegetation
	0	= To	tal Cove	-	Present? Yes V NO V

Soil

Sampling Point: D-012

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth		Matrix		Re	dox Features				
(inches)		(moist)	%	Color (moist)		Loc2	Texture	Remarks	
0-21	10YR	3/3	100		- <u> </u>		Loam		
1		D. Dl-4!-	- DM DI		C C C	21	tion DI Done Linium M M	_4	
			n. RIVI=Rea	uced Matrix, CS=Covere	ed or Coated Sand Gra	ns <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)				v Surface (S8) (MLRA		Coast Prairie Red	ox (A16)	
Black His					ace (S9) (MLRA 147, 1	48)	(MLRA 147,148)	<i>on</i> (110)	
	n Sulfide (A4			Loamy Gleyed			Piedmont Floodpl	ain Soils (F19)	
	Layers (A5)			Depleted Matrix			(MLRA 136, 147)		
2 cm Muc	k (A10) (LR	R N)		Redox Dark Su	, ,		Very Shallow Dar	k Surface (TF12)	
Depleted	Below Dark	Surface (A	.11)	Depleted Dark			Other (Explain in	Remarks)	
Thick Dar	k Surface (A	A12)		Redox Depress					
Sandy Mu MLRA 14	uck Mineral 7, 148)	(S1) (LRR N	٧,	☐ Iron-Manganes MLRA 136)	e Masses (F12) (LRR N	<b>I</b> ,			
Sandy Gle	eyed Matrix	(S4)		Umbric Surface	(F13) (MLRA 136, 12	2)	2		
Sandy Re				Piedmont Floor	dplain Soils (F19) (MLR	A 148)	<sup>3</sup> Indicators of	hydrophytic vegetatio drology must be prese	n and
	Matrix (S6)			Red Parent Ma	terial (F21) (MLRA 127	, 147)		sturbed or problemati	
Restrictive L	ayer (if ob	served):							
Type:							Unidada Cali Dana and 2	Yes O No G	
Depth (inc	:hes):						Hydric Soil Present?	Yes ∪ No 🤄	
Remarks:									

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21				
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-013				
Investigator(s): J. Stelly and C. Hoffr	man	Section, Township, Range:	S T R				
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °				
Subregion (LRR or MLRA): LRR N	Lat	.: 37.68515 Lo	ong.: -85.96023 Datum: WGS 1984				
Soil Map Unit Name: Nb - Newark s			NWI classification: N/A				
Are climatic/hydrologic conditions or		year? Yes   No (If no	o, explain in Remarks.)				
Are Vegetation, Soil		•	al Circumstances" present? Yes  No				
Are Vegetation , Soil .		-	, explain any answers in Remarks.)				
Summary of Findings - At	tach site map showing	sampling point locatio	ns, transects, important features, etc.				
Hydrophytic Vegetation Present?	Yes ○ No •						
Hydric Soil Present?	Yes O No 🗨	Is the Sampled Area	Yes ○ No ●				
Wetland Hydrology Present?	Yes O No 🗨	within a Wetland?	Tes C NO C				
Remarks:		<u>'</u>					
Hydrology							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of or	ne required: check all that apply	)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Pla		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfid		Drainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizos	oheres along Living Roots (C3)	Moss Trim Lines (B16)				
☐ Water Marks (B1)	Presence of Red						
Sediment Deposits (B2)	Recent Iron Red	luction in Tilled Soils (C6)	Crayfish Burrows (C8)				
Drift deposits (B3)	☐ Thin Muck Surfa	ce (C7)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)				
☐ Iron Deposits (B5)			Geomorphic Position (D2)				
Inundation Visible on Aerial Imager	y (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							
C. I. II. D. 10	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Wetland Hyd	drology Present? Yes O No 💿				
(includes capillary fringe) Yes	<u> </u>						
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	otos, previous inspections), if ava	ailable:				
Domorko							
Remarks:  No hydro characteristics.							
No figuro characteristics.							

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

		-Species? -		Sampling Point: <u>D-013</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	70	<b>✓</b> 77.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2. Celtis occidentalis		11.1%	FACU	That are obe, thou, or the.
3. Ulmus americana		11.1%	FACW	Total Number of Dominant Species Across All Strata: 1 (B)
4.		0.0%		Species Across Air Strata.
5		0.0%		Percent of dominant Species
6		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:
Sapling-Sapling/Shrub Stratum (Plot size:	90 =	= Total Cove	г	0BL speci es x 1 =
1	0	0.0%		FACW species
2	0	0.0%		FAC speci es x 3 =
3		0.0%		FACU species $80$ x 4 = $320$
4	_	0.0%		UPL speci es $0 \times 5 = 0$
5		0.0%		Column Totals: 90 (A) 340 (B)
6	_	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%
0	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	:	= Total Cove	r	☐ Morphological Adaptations ¹ (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%		1 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:)	:	= Total Cove	٢	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%		
6		0.0%		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 diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding woody
0	0_	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1   2		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, including herbaceous vines, regardless of size, and woody
1		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 height.
4				
5	0	0.0%		Hydrophytic
6				Vegetation Present? Yes ○ No ●
		- rotal cove	•	
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil

Sampling Point: Describe to the depth needed to document the indicator or confirm the absence of indicators.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Depth Matrix Redox Features						-			
(inches)	Color (moist)		Color (moist)	%	Type 1	Loc2	<u>Texture</u>	Remarks		
0-21	10YR 3/3						Loam			
			-							
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduce	d Matrix. CS=Covere	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix		
Hydric Soil I			aa, 00 00101	<b>54</b> 0. <b>55</b> 410						
Histosol (A			Dark Surface (	S7)			Indicators for Proble	matic Hydric Soils <sup>3</sup> :		
Histic Epip			Polyvalue Belov		SQ) (MI DA	1/7 1/9)	2 cm Muck (A10)	(MLRA 147)		
Black Histi			Thin Dark Surfa				Coast Prairie Redo	x (A16)		
	Sulfide (A4)		Loamy Gleyed			40)	(MLRA 147,148)			
	Layers (A5)		Depleted Matrix				Piedmont Floodpla	in Soils (F19)		
	(A10) (LRR N)		Redox Dark Su				(MLRA 136, 147)	0.5 (7510)		
		11\	Depleted Dark	` ,	7)					
	Below Dark Surface (A Surface (A12)	11)	Redox Depress		')		Other (Explain in F	Remarks)		
	, ,		Iron-Manganes		F12) (I RR I	J				
☐ Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	1,	MLRA 136)							
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	.RA 136, 12	2)	3			
Sandy Rec	dox (S5)		Piedmont Floor	dplain Soils	(F19) (MLF	RA 148)	undicators of r wetland hydr	ydrophytic vegetation and ology must be present,		
Stripped M	Matrix (S6)		Red Parent Ma	terial (F21)	(MLRA 127	<sup>7</sup> , 147)	unless dis	turbed or problematic.		
Postrictive I a	yer (if observed):									
Type:										
-	nes):						Hydric Soil Present?	Yes ○ No ●		
	103).									
Remarks:										

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-014
Investigator(s): J. Stelly and C. Hof	fman	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °
Subregion (LRR or MLRA): LRR	N Lat.	: 37.68529 Lo	ong.: -85.95955
Soil Map Unit Name: Nb - Newark			NWI classification: N/A
Are climatic/hydrologic conditions	on the site typical for this time of	year? Yes  No (If no	o, explain in Remarks.)
Are Vegetation . , Soil .		•	al Circumstances" present? Yes ● No ○
Are Vegetation . , Soil .	, or Hydrology 🔲 naturally	problematic? (If needed	, explain any answers in Remarks.)
Summary of Findings - A	ttach site map showing	sampling point locatio	ns, 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?	166 - 166 -
Remarks: Wet-6			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o	one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plar	nts (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfide	Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosp	heres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Redu	uced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Redu	uction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Surfac	e (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 Image	ery (B7)		Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:	2 0		
Surface Water Present? Yes	1 , ,	6	
Water Table Present? Yes	No      Depth (inches):		drology Present? Yes  No
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetland Hy	drology Present? Yes ● No U
Describe Recorded Data (stream of	gauge, monitoring well, aerial pho	tos, previous inspections), if ava	ailable:
Remarks:			
Remarks.			

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

1. Acer rubrum 66 2. Celtis laevigata 22 3. Ulmus americana 10 4.	0	-Species? Rel.Strat. Cover	FAC FACW	Dominance Test worksheet:  Number of Dominant Species That are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:
2. Celtis laevigata 2/3. Ulmus americana 1/4	0	22.2% 11.1% 0.0% 0.0% 0.0% 0.0%	FACW	That are OBL, FACW, or FAC: (A)  Total Number of Dominant Species Across All Strata: (B)
3. Ulmus americana	0 [ 0 [ 0 [ 0 [ 0 [ 0 [	11.1% 0.0% 0.0% 0.0% 0.0%		Species Across All Strata: (B)
4		0.0% 0.0% 0.0% 0.0%	FACW	Species Across All Strata: (B)
5		0.0%		
5	) [ ) [	0.0%		Percent of dominant Species
6	) [	0.0%		100.00/ (1/0)
7	) [	$\neg$		That Are OBL, FACW, or FAC: 100.0% (A/B)
Sapling-Sapling/Shrub Stratum (Plot size:)		0.0%		Prevalence Index worksheet:
Sapling-Sapling/Shrub Stratum (Plot size:)	0 =			Total % Cover of: Multiply by:
		Total Cov	er	OBL species x 1 =
	ſ			FACW species 30 x 2 = 60
·	[			FAC species60x 3 =180
				FACU species x 4 =0
3	_ ;	0.0%_		
4	<u> </u>			(n)
5	<u> </u>			Col umn Total s: 90 (A) 240 (B)
0	[	0.0%		Prevalence Index = B/A = 2.667
7				Hydrophytic Vegetation Indicators:
8	<u> </u>			Rapid Test for Hydrophytic Vegetation
9	<u> </u>			✓ Dominance Test is > 50%
0		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	=	Total Cove	er	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)
	o_ [	0.0%		1 Indicators of hydric soil and wetland hydrology must
	0 [	0.0%		be present, unless disturbed or problematic.
	o_ [	0.0%		Definition of Vegetation Strata:
	o [	0.0%		Four Vegetation Strata:
	o [	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:)	) =	Total Cove	er	regardless of height.
		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.
	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.
	0 [	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
T	o [	0.0%		in height.
J.,	o [	0.0%		
U	o [	0.0%		Five Vegetation Strata:
	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
0	0 [	0.0%		diameter at breast height (DBH).
·	0 [	0.0%		Sapling stratum – Consists of woody plants, excluding woody
·-	0 [	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	0 [	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		: Total Cov		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (PIOT SIZE: )				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
·	0 [	0.0%		species, except woody vines, less than approximately 3 ft (1
2	0 [	0.0%		m) in height.
·	0 [	0.0%		Woody vines – Consists of all woody vines, regardless of height.
т	<u>0</u> [			
J	<u> </u>	0.0%_		Hydrophytic
6	<u>o</u> l	0.0%		Vegetation
	0 =	= Total Cov	er	Present? Yes No

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix		Redox Features           Color (moist)         %         Type         1         Loc²			1 2	Tt	Damanka
(inches) 0-21	Color (moist) 10YR 3/1	80	5YR 4/6	20	C	M	<u>Texture</u> Loam	Remarks
			3110 470			IVI	Loam	
				_				
	-							
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I	ndicators:						Indicators for Proble	ematia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Belo		(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	
_ ` `	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TE12)
	Below Dark Surface (A	(11)	Depleted Dark		7)			
	Surface (A12)	,	Redox Depress		•		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR N	N.	Iron-Manganes		(F12) (LRR I	١,		
MLRA 147	, 148)	ν,	MLRA 136)	·	, , ,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and Irology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	, 147)		sturbed or problematic.
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Sampling Point: D-015
Investigator(s): J. Stelly and C. Hoffr	man	Section, Township, Range: S	Б Т R
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat	.: 37.68552 <b>Lo</b>	ng.: -85.95905 Datum: WGS 1984
Soil Map Unit Name: SnB - Sonora			NWI classification: N/A
Are climatic/hydrologic conditions or		year? Yes  No (If no	o, explain in Remarks.)
Are Vegetation, Soil		•	Il Circumstances" present? Yes   No
Are Vegetation . , Soil .	, or Hydrology $\ \square$ naturally	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At	tach site map showing	sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ○ No •		
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes ○ No •	within a Wetland?	103 0 110 0
Remarks:			
Hydrology			
Wetland Hydrology Indicators:  Primary Indicators (minimum of or	as required, check all that apply	1	Secondary Indicators (minimum of two required)
Surface Water (A1)	True Aquatic Pla		☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide		Drainage Patterns (B10)
Saturation (A3)	_ , ,	oheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Red		Dry Season Water Table (C2)
Sediment Deposits (B2)		uction in Tilled Soils (C6)	Crayfish Burrows (C8)
☐ Drift deposits (B3)	☐ Thin Muck Surfa		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	_	,	Geomorphic Position (D2)
Inundation Visible on Aerial Imager	y (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	., , , , , , , , , , , , , , , , , , ,		Irology Present? Yes ○ No •
Saturation Present? (includes capillary fringe) Yes	No Depth (inches)	·	notogy resent.
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	otos, previous inspections), if ava	ilable:
Remarks:			
none.			

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

		-Species? -		Sampling Point: <u>D-015</u>
	Absolute		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%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Description of description of Council and
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		
2	_	0.0%		FAC species $0 \times 3 = 0$
=				FACU speci es
3	0	0.0%		UPL species $\frac{50}{}$ x 5 = $\frac{250}{}$
4	0	0.0%		
5	0	0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
		0.0%		Davidon de la dece D/A 5 000
6				Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0			Froblematic Hydrophytic vegetation (Explain)
3	0	0.0%		1 Indicators of hydric soil and wetland hydrology must
4		0.0%		be present, unless disturbed or problematic.
				Definition of Vegetation Strata:
5	0	0.0%		I -
6	0	0.0%		Four Vegetation Strata:
7		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:)		= Total Cover		-
1. Zea mays	50	<b>1</b> 00.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		0.0%		1 ' ' ' '
2				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%		
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
	0	0.0%		
6				Five Vegetation Strata:
7	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).
7.		$\neg$		Sapling stratum - Consists of woody plants, excluding woody
10				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:)		- Total Gover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
• •	0	0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
2				
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
	0	0.0%		
5				Hydrophytic
6	0	0.0%		Vegetation Present?  Yes No   No
	0	= Total Cover	Ī	Present? Yes V NO V
Demander (Include the Land)				<u> </u>
Remarks: (Include photo numbers here or on a separate she	et.)			

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or co	nfirm the a	absence of indicators.)	
Depth	Matrix		Red					
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc2	<u>Texture</u>	Remarks
0-21	10YR 3/3						Loam	
			-					
				-				
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I							Indicators for Proble	
Histosol (A			Dark Surface (	S7)				
Histic Epip			Polyvalue Belov		S8) (MLRA	147,148)	2 cm Muck (A10) (	(MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redo	x (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	(510)
	_ayers (A5)		Depleted Matrix				Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TF12)
	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	
	Surface (A12)	,	Redox Depress	ions (F8)			Other (Explain in F	cerrai ks)
	ck Mineral (S1) (LRR N	l,	Iron-Manganes MLRA 136)	e Masses (	F12) (LRR I	٧,		
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136. 12	2)		
Sandy Rec			☐ Piedmont Floor				3 Indicators of h	ydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hydr	ology must be present, turbed or problematic.
Stripped iv	Matrix (50)		Red I alent Ma	teriai (i 2 i)	(IVILIA 12)	, 147)	uniess dis	turbed or problematic.
Restrictive La	yer (if observed):							
Type:								
Depth (inch	nes):						Hydric Soil Present?	Yes ○ No •
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date	: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point:	D-016
Investigator(s): J. Stelly and C. Hoff	fman	Section, Township, Range: S	S T R	t
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:	
Subregion (LRR or MLRA): LRR N		37.68622 <b>Lo</b>		Datum: WGS 1984
Soil Map Unit Name: Nb - Newark		37.00022	NWI classification: PEM10	
•	· · · · · · · · · · · · · · · · · · ·	ear? Yes  No (If no		
Are climatic/hydrologic conditions o		•	o, explain in Remarks.)	s • No O
Are Vegetation, Soil			in on damstandes present.	
Are Vegetation  , Soil .	, or Hydrology L naturally p	oroblematic? (If needed,	explain any answers in Remarks.)	
Summary of Findings - At	ttach site map showing s	sampling point location	ns, 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?	Yes ♥ NO ∪	
Remarks:				
Wet-7				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of ty	wo required)
Primary Indicators (minimum of o			Surface Soil Cracks (B6)	
Surface Water (A1)	True Aquatic Plant	s (B14)	Sparsely Vegetated Concave Sur	face (B8)
✓ High Water Table (A2)	Hydrogen Sulfide C	Odor (C1)	Drainage Patterns (B10)	
Saturation (A3)	Oxidized Rhizosphe	eres along Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)	Presence of Reduc	ced Iron (C4)	Dry Season Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduc	ction in Tilled Soils (C6)	Crayfish Burrows (C8)	
Drift deposits (B3)	Thin Muck Surface	e (C7)	Saturation Visible on Aerial Imag	jery (C9)
Algal Mat or Crust (B4)	Other (Explain in R	Remarks)	Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)			Geomorphic Position (D2)	
Inundation Visible on Aerial Image	ry (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	Deput (mones).	0 Wetland Hyd	drology Present? Yes • No	0
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):		arology Present: 105 ° No	,
Describe Recorded Data (stream ga	auge, monitoring well, aerial photo	os, previous inspections), if ava	ilable:	
Remarks:				

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

		۰.	:2		Sampling Point: D-016
Tree Stratum (Plot size:)	Absolute % Cover	Re	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:
1. Acer rubrum	_60_	✓.	66.7%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2. Celtis laevigata	20	$\mathbf{V}_{\mathbf{r}}$	22.2%	FACW	T. I.
3. Ulmus americana	10		11.1%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4	0		0.0%		
5			0.0%		Percent of dominant Species
6			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	90	= To	tal Cover		0BL species x 1 =0
			0.00/		FACW species <u>30</u> x 2 = <u>60</u>
1		Η.	0.0%		FAC species60 x 3 =180
2		$\Box$	0.0%		FACU speciles x 4 =0
3		Η.	0.0%		UPL species $0 \times 5 = 0$
4		Η.	0.0%		Column Totals: 90 (A) 240 (B)
5		Η.	0.0%		Column locals:
6	-	$\vdash$	0.0%		Prevalence Index = B/A = 2.667
7		一.	0.0%		Hydrophytic Vegetation Indicators:
8	_	Η.	0.0%		Rapid Test for Hydrophytic Vegetation
9		님.	0.0%		✓ Dominance Test is > 50%
0		Ш.	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	:	= To	tal Cover		☐ Morphological Adaptations ¹ (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%		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	= To	tal Cover	•	regardless of height.
1		П	0.0%		Sapling/shrub stratum – Consists of woody plants, excluding
2		$\Box$	0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody) plants,
3	0	$\Box$	0.0%		regardless of size, and all other plants less than 3.28 ft tall.
4	0	$\Box$	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	$\Box$	0.0%		in height.
6	0		0.0%		<del>-</del>
7	0		0.0%		Five Vegetation Strata:
8		$\Box$	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		$\Box$	0.0%		Sapling stratum – Consists of woody plants, excluding woody
1	0	$\Box$	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2.	0	$\Box$	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		 = To	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, including herbaceous vines, regardless of size, and woody
1					species, except woody vines, less than approximately 3 ft (1
2			0.0%		m) in height.
3	0	<u> </u>	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4					
5			0.0%		Hydrophytic
6		Ч.	0.0%		Vegetation   Present?
	0	= To	otal Cove	r	

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix		Redox Features           Color (moist)         %         Type         1         Loc²			1 2	Tt	Damanka
(inches) 0-21	Color (moist) 10YR 3/1	80	5YR 4/6	20	C	M	<u>Texture</u> Loam	Remarks
			3110 470			IVI	Loam	
				_				
	-							
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I	ndicators:						Indicators for Proble	ematia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Belo		(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	
_ ` `	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TE12)
	Below Dark Surface (A	(11)	Depleted Dark		7)			
	Surface (A12)	,	Redox Depress		•		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR N	N.	Iron-Manganes		(F12) (LRR I	١,		
MLRA 147	, 148)	ν,	MLRA 136)	·	, , ,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and Irology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	, 147)		sturbed or problematic.
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling I	<b>Date</b> : 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point:	D-017
Investigator(s): J. Stelly and C. Hoffman		Section, Township, Range:	т	R
Landform (hillslope, terrace, etc.):	Lo	ocal relief (concave, convex,	none): Slo	pe:0.0% /0.0 °
Subregion (LRR or MLRA): LRR N		37.68662 <b>Lo</b>	ng.: -85.96165	Datum: WGS 1984
Soil Map Unit Name: Nb - Newark silt loam			NWI classification: N/	
Are climatic/hydrologic conditions on the site	e typical for this time of year	-? Yes ● No ○ (If no	o, explain in Remarks.)	
Are Vegetation $\ \square$ , Soil $\ \square$ , or Hyd	drology    significantly	disturbed? Are "Norma	al Circumstances" present?	Yes   No
Are Vegetation, Soil, or Hyd	drology 🗌 naturally pro	blematic? (If needed,	explain any answers in Rema	rks.)
Summary of Findings - Attach s	ite map showing sa	mpling point locatio	ns, transects, importa	int features, etc.
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? Yes	○ No •	Is the Sampled Area	Yes ○ No ●	
Wetland Hydrology Present? Yes	○ No ●	within a Wetland?	tes UNU U	
Remarks:				
II. dalam.				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum	of two required)
Primary Indicators (minimum of one requir			Surface Soil Cracks (B6)	
Surface Water (A1)	True Aquatic Plants (I		Sparsely Vegetated Concave	e Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odd		Drainage Patterns (B10)	
Saturation (A3)		es along Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1) Sediment Deposits (B2)	Presence of Reduced		Dry Season Water Table (C2	2)
Drift deposits (B3)	Recent Iron Reductio Thin Muck Surface (C		Crayfish Burrows (C8)  Saturation Visible on Aerial	Imagary (CO)
Algal Mat or Crust (B4)	Other (Explain in Ren	•	Stunted or Stressed Plants (	
Iron Deposits (B5)	Uther (Explain in Ken	narks)	Geomorphic Position (D2)	טו)
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	· · · —			
Water Table Present? Yes No	Depth (inches):		drology Present? Yes	No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wetland Hyd	drology Present? Yes ∪	NO S
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos,	previous inspections), if ava	ilable:	
Demonto				
Remarks:				
none.				

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

		Domina			Sampling Point: _D-017
	Absolute % Cover	itonoti u		icator tus	Dominance Test worksheet:
1	0	0.09	%		Number of Dominant Species That are OBL, FACW, or FAC:1 (A)
2		0.09	6		
3		0.09	%		Total Number of Dominant Species Across All Strata: 3 (B)
4		0.09	%		<u> </u>
5		0.09	%		Percent of dominant Species
6		0.09	%		That Are OBL, FACW, or FAC: 33.3% (A/B)
7	_	0.09	6		Prevalence Index worksheet:
8	0	0.09	%		Total % Cover of: Multiply by:
(Diet size)	0	= Total Co	ver		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)			,		FACW species 0 x 2 = 0
1	_	0.09			FAC species
2		0.09			FACU species60 x 4 =240
3					UPL species $0 \times 5 = 0$
4		0.09			Col umn Total s: 80 (A) 300 (B)
5		0.09			(1)
6		0.09			Prevalence Index = B/A = 3.750
7		0.09			Hydrophytic Vegetation Indicators:
8		0.09			Rapid Test for Hydrophytic Vegetation
9		0.09			Dominance Test is > 50%
10					Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Total Co			Morphological Adaptations <sup>1</sup> (Provide supporting
1					data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2					
3					Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.09			·
5					Definition of Vegetation Strata:
6			<u> </u>		Four Vegetation Strata: Tree stratum – Consists of woody plants, excluding vines, 3 in.
7	0	0.09			(7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	0	= Total Co	ver		regardless of height.
1. Echinochioa crusgalli	30	37.5	% FAC	CU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Xanthium strumarium	20	25.0	% FAC	C	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Sorghum halepense	30	37.5	% FAC	CU	regardless of size, and all other plants less than 3.28 ft tall.
4	0		<u> </u>		Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0		<u> </u>		
6	0		<u> </u>		Five Vegetation Strata:
7	0				Tree - Woody plants, excluding woody vines, approximately 20
8	0		<u> </u>		ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			<u> </u>		Sapling stratum – Consists of woody plants, excluding woody
10			<u> </u>		vines, approximately 20 ft (6 m) or more in height and less
11	0				than 3 in. (7.6 cm) DBH.
12	0	0.09			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:)	80	= Total Co	ver		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.09	<u> </u>		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1
2	0	0.09	6 <u> </u>		m) in height.
3	0	0.09	<u> </u>		Woody vines – Consists of all woody vines, regardless of
4	0	0.09	<u> </u>		height.
5	0	0.09	<u> </u>		Hydrophytic
6	0	0.09	%		Vegetation
	0	= Total Co	over		Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	et.)				
•					

Profile Descr		the depth r				nfirm the a	bsence of indicators.)	
Depth (inches)	Matrix Color (moist)			dox Featu	res1	1 222	Toyture	Domonto
(inches) 0-21	Color (moist) 10YR 3/3	<b>%</b> 100	Color (moist)	%	IVDE	Loc <sup>2</sup>	<u>Texture</u> Loam	Remarks
							Louin	
-								
1 0. 0		- DM D		Ct-	-1 C1 C	21 1	Nine Di Done Linine M Me	-1-d.
		n. RM=Redu	ced Matrix, CS=Covere	d or Coate	d Sand Gra	iins <sup>2</sup> Locai	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I				\ <del>-</del> \			Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol (			Dark Surface (S		CO) /M // D *	147 140	2 cm Muck (A10)	(MLRA 147)
☐ Histic Epip☐ Black Hist	pedon (A2)		Polyvalue Below Thin Dark Surfa				Coast Prairie Redo	ox (A16)
	Sulfide (A4)					48)	(MLRA 147,148)	
	Layers (A5)		Loamy Gleyed I  Depleted Matrix				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	k (A10) (LRR N)		Redox Dark Sui					C (TF10)
	Below Dark Surface (A	11\	Depleted Dark		7)		☐ Very Shallow Dark	
	k Surface (A12)	.11)	Redox Depress		,		Other (Explain in I	Remarks)
	ck Mineral (S1) (LRR N	J	☐ Iron-Manganes		F12) (LRR	N,		
MLRA 147	7, 148)	ν,	MLRA 136)	·				
	eyed Matrix (S4)		Umbric Surface				<sup>3</sup> Indicators of h	hydrophytic vegetation and
Sandy Re			☐ Piedmont Flood				wetland hyd	rology must be present,
☐ Stripped N	Matrix (S6)		Red Parent Ma	terial (F21)	(MLRA 12	7, 147)	unless dis	sturbed or problematic.
Restrictive La	ayer (if observed):							
Type:								
Depth (incl	hes):						Hydric Soil Present?	Yes O No O
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardi	n	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State:	KY Sampl	ling Point: D-018
Investigator(s): J. Stelly and C. Hoff	fman	Section, Township, Range	e: S T	R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, conve	ex, none): flat	Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N		– nt.: 37.68721	Long.: -85.96154	Datum: WGS 1984
Soil Map Unit Name: Nb - Newark		37.00721	NWI classifi	
·	· · · · · · · · · · · · · · · · · · ·	f year? Yes   No (If		
Are Climatic/hydrologic conditions o		·	f no, explain in Remarl	Vac 📵 Na 🔘
Are Vegetation, Soil			mal Circumstances" p	.036111.
Are Vegetation, Soil	, or Hydrology L natural	ly problematic? (If neede	ed, explain any answe	ers in Remarks.)
Summary of Findings - At	ttach site map showing	g sampling point locati	ions, transects,	important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○			
Hydric Soil Present?	Yes ● No ○	Is the Sampled Are	ea Yes  No	
Wetland Hydrology Present?	Yes ● No ○	within a Wetland?	Yes S No C	
Remarks:				
Wet-8				
Hydrology				
Wetland Hydrology Indicators:			_Secondary Indicato	ors (minimum of two required)
Primary Indicators (minimum of o			_ Surface Soil Cra	acks (B6)
Surface Water (A1)	True Aquatic P		Sparsely Vegeta	ated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfi	, ,	Drainage Patter	rns (B10)
Saturation (A3)	Oxidized Rhizo	spheres along Living Roots (C3)	Moss Trim Line	es (B16)
Water Marks (B1)	Presence of Re	duced Iron (C4)	Dry Season Wa	
Sediment Deposits (B2)	Recent Iron Re	duction in Tilled Soils (C6)	Crayfish Burrow	vs (C8)
☐ Drift deposits (B3)	Thin Muck Surf	ace (C7)	Saturation Visib	ole on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain	in Remarks)	Stunted or Stre	essed Plants (D1)
Iron Deposits (B5)			Geomorphic Po	osition (D2)
Inundation Visible on Aerial Image	ry (B7)		Shallow Aquitar	rd (D3)
✓ Water-Stained Leaves (B9)			Microtopograph	nic Relief (D4)
Aquatic Fauna (B13)			✓ FAC-neutral Te	st (D5)
Field Observations:				
Surface Water Present? Yes	• •	s):		
Water Table Present? Yes	No Depth (inches	s):4		Yes ● No ○
Saturation Present?  (includes capillary frings)  Yes	No Depth (inches		Hydrology Present?	Yes ● No ○
(includes capillary fringe)  Describe Recorded Data (stream g	auge, monitoring well, aerial ph	notos, previous inspections), if a	available:	
, ( <u>(</u> <u>)</u>	3 7 7 7 7	, , , , , , , , , , , , , , , , , , ,		
Remarks:				

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

		Dominant		Sampling Point: D-018
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		0.0%		
3.		0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4		0.0%		Species Across All Strata: (B)
		0.0%		Percent of dominant Species
5		0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
6		0.0%		
7				Prevalence Index worksheet:
8		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	)	= Total Cove	er	0BL species 0 x 1 = 0
1	_	0.0%		FACW species <u>45</u> x 2 = <u>90</u>
2		0.0%		FAC speci es $\underline{40}$ x 3 = $\underline{120}$
3		0.0%		FACU species $0 \times 4 = 0$
<b>.</b> .		0.0%		UPL species $0 \times 5 = 0$
4		0.0%		Column Totals:85 (A)210 (B)
5				
6		0.0%		Prevalence Index = B/A = 2.471
7		0.0%		Hydrophytic Vegetation Indicators:
8				Rapid Test for Hydrophytic Vegetation
9	0			✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cove	er	Morphological Adaptations <sup>1</sup> (Provide supporting
1. Acer rubrum	40	<b>✓</b> 47.1%	FAC	data in Remarks or on a separate sheet)
0.000	30	35.3%	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Cettis laevigata     Ulmus americana		17.6%	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		0.0%	TAOW	be present, unless disturbed or problematic.
4				Definition of Vegetation Strata:
5				<u> </u>
6	0			Four Vegetation Strata:  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:)	85	= Total Cove	er	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%		Herb stratum – Consists of all herbaceous (non-woody) plants,
	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
5	0	0.0%		in height.
	0	0.0%		
6		0.0%		Five Vegetation Strata:
7				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 diameter at breast height (DBH).
9	0			Sapling stratum – Consists of woody plants, excluding woody
10	0			vines, approximately 20 ft (6 m) or more in height and less
11	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.
	0	= Total Cove	er	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
	0	0.0%		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
		0.0%		height.
4				
5		0.0%		Hydrophytic
6	0	0.0%_		Vegetation Present?  Yes  No
	0	= Total Cove	er	Present? Yes No
Remarks: (Include photo numbers here or on a separate shee	et.)			
	•			

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix			dox Featu	Tvpe 1	Loc2	Tt	Damanka
(inches) 0-21	Color (moist) 10YR 3/1	80	Color (moist) 5YR 4/6	<del>%</del> 20	C	M	<u>Texture</u> Loam	Remarks
			3110 470			IVI	Loam	
				_				
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I	ndicators:						Indicators for Proble	ematia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Belo		(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	
_ ` `	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TE12)
	Below Dark Surface (A	(11)	Depleted Dark		7)			
	Surface (A12)	,	Redox Depress		•		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR N	N.	Iron-Manganes		(F12) (LRR I	١,		
MLRA 147	, 148)	ν,	MLRA 136)	·	, , ,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and Irology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	, 147)		sturbed or problematic.
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampli	ing Date:	23-Feb-21
Applicant/Owner: 7x Energy				State: K	Υ	Sampling Poi	-	D-019
Investigator(s): J. Stelly and C. Hoff	man		Section, Town	nship, Range: S	s	т	R	
Landform (hillslope, terrace, etc.):	Flat		Local relief (co	ncave, convex,	none	e): flat	Slope:	0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N		Lat.:	37.68806	Lo	ng.:	-85.96136	_	atum: WGS 1984
Soil Map Unit Name: Nb - Newark			37.00000		119	NWI classification:		
Are climatic/hydrologic conditions o	on the site typ	pical for this time of ye	ear? Yes •	No O (If no	э, ехр	olain in Remarks.)		
Are Vegetation, Soil	, or Hydrolo		ly disturbed?	Are "Norma	al Circ	cumstances" present?	Yes	● No ○
Are Vegetation . , Soil .	, or Hydrolo		roblematic?			ain any answers in Re		
Summary of Findings - At	ttach site	map showing s	ampling po	oint location	ns, 1	transects, impo	ortant f	eatures, etc.
Hydrophytic Vegetation Present?	Yes 🔾	No •						
Hydric Soil Present?	Yes $\bigcirc$	No •		Sampled Area	oled Area Yes O No •			
Wetland Hydrology Present?	Yes $\bigcirc$	No •		a Wetland?	163	S O NO O		
Remarks:								
IIlualanı								
Hydrology								
Wetland Hydrology Indicators:	_				Sec	condary Indicators (minir		o required)
Primary Indicators (minimum of o	ne required;					Surface Soil Cracks (B6)		
Surface Water (A1)		True Aquatic Plants				Sparsely Vegetated Con		ace (B8)
High Water Table (A2)		Hydrogen Sulfide O		/a=\		Drainage Patterns (B10)	)	
Saturation (A3)		Oxidized Rhizosphe		Roots (C3)		Moss Trim Lines (B16)	(20)	
Water Marks (B1)  Sediment Denosits (B2)		Presence of Reduce		(0/)		Dry Season Water Table	e (C2)	
Sediment Deposits (B2)  Drift deposits (B3)		Recent Iron Reduct		(C6)		Crayfish Burrows (C8)	ial Imaga	(00)
Algal Mat or Crust (B4)		Thin Muck Surface	. ,			Saturation Visible on Ae	-	ry (C9)
Iron Deposits (B5)		Other (Explain in Re	emarks)			Stunted or Stressed Pla Geomorphic Position (D		
Inundation Visible on Aerial Image	rv (R7)					Shallow Aquitard (D3)	12)	
Water-Stained Leaves (B9)	Ty (57)					Microtopographic Relief	f (D4)	
Aquatic Fauna (B13)						FAC-neutral Test (D5)	(04)	
Field Observations:						The ficultar rest (Se,		
Surface Water Present? Yes	○ No ●	Depth (inches):						
Water Table Present? Yes	O No ●	Depth (inches):					$\overline{}$	$\sim$
Saturation Present?  (includes capillary frings)  Yes	No ●	Depth (inches):		Wetland Hyd	drolog	gy Present? Yes	O No	•
(includes capillary fringe)  Describe Recorded Data (stream g			s, previous insp	ections), if ava	ailable	<del></del> 9:		
Remarks:								
No hydro characteristics.								

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

Tree Stratum (Plot size:)  1. Accer nigrum  2. Celtis occidentalis	Absolute % Cover	-Species? Rel.Strat. Cover 78.9%	Indicator Status	Dominance Test worksheet:
1. Acer nigrum 2. Celtis occidentalis			Jiaius	Number of Deminant Species
2. Celtis occidentalis	73		FACU	Number of Dominant Species
	15	15.8%	FACU	That are OBL, FACW, or FAC: (A)
	-	5.3%	FACW	Total Number of Dominant
3. Ulmus americana 4.		0.0%	171011	Species Across All Strata: (B)
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8.	0	0.0%		Total % Cover of: Multiply by:
	95 =	= Total Cove	r	0BL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =10
1		0.0%		FAC species x 3 =
2		0.0%		FACU speci es 90 x 4 = 360
3		0.0%		UPL species $\frac{0}{\sqrt{1 + \frac{1}{2}}} \times 5 = \frac{0}{\sqrt{1 + \frac{1}{2}}}$
4		0.0%		Column Totals: 95 (A) 370 (B)
5	_	0.0%		
6		0.0%		Prevalence Index = B/A = 3.895
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
0		= Total Cove		Prevalence Index is ≤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%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		
3		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	0 0	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		= Total Cove		(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				vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2		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%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		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 diameter at breast height (DBH).
9	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 Cove	r	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, including herbaceous vines, regardless of size, and woody
1				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 height.
4				
5	0	0.0%		Hydrophytic
6				Vegetation Present?  Yes ○ No ●
Remarks: (Include photo numbers here or on a separate sheet.		- TOTAL COVE	1	

Soil Sampling Point: D-019

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	iption: (De	escribe to Matrix	ше аертп		tne indicator or co	tne a	absence of indicators.)	
(inches)	Color	(moist)	%			_Loc2	Texture	Remarks
0-21	10YR	3/3	100				Loam	
				-			-	
							-	
	-							
1								
			n. RM=Redu	uced Matrix, CS=Covere	d or Coated Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I							Indicators for Problem	matic Hydric Soils <sup>3</sup> :
Histosol (				Dark Surface (S			2 cm Muck (A10) (	(MLRA 147)
	pedon (A2)				v Surface (S8) (MLRA		Coast Prairie Redox	x (A16)
Black Hist					ce (S9) (MLRA 147, 1	48)	(MLRA 147,148)	. ()
	Sulfide (A4			Loamy Gleyed I			Piedmont Floodpla	in Soils (F19)
	Layers (A5)			Depleted Matrix			(MLRA 136, 147)	
	k (A10) (LR			Redox Dark Sur	` ,		Very Shallow Dark	Surface (TF12)
	Below Dark		11)	Depleted Dark			Other (Explain in R	Remarks)
	k Surface (A	•		Redox Depressi				
Sandy Mu MLRA 147	ick Mineral ( 7, 148)	(S1) (LRR N	l,	MLRA 136)	e Masses (F12) (LRR			
Sandy Gle	eyed Matrix	(S4)		Umbric Surface	(F13) (MLRA 136, 12	2)	3	
Sandy Re	dox (S5)			Piedmont Flood	lplain Soils (F19) (MLI	RA 148)	Indicators of h	ydrophytic vegetation and ology must be present,
Stripped N	Matrix (S6)			Red Parent Mat	erial (F21) (MLRA 12	7, 147)	unless dist	turbed or problematic.
Restrictive La	ayer (if ob	served):						
Type:							Hydric Soil Present?	Yes O No •
	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-020		
Investigator(s): J. Stelly and C. Hoffn	man	Section, Township, Range:	S T R		
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0% /0.0 °		
Subregion (LRR or MLRA): LRR N	Lat	:: 37.68889 La	ong.: -85.96095		
Soil Map Unit Name: Nb - Newark s			NWI classification: N/A		
Are climatic/hydrologic conditions or		year? Yes   No (If no	o, explain in Remarks.)		
Are Vegetation, Soil		•	al Circumstances" present? Yes  No		
Are Vegetation, Soil			explain any answers in Remarks.)		
Summary of Findings - At	tach site map showing	sampling point locatio	ns, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes ○ No •				
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	<sup>ea</sup> Yes ○ No ●		
Wetland Hydrology Present?	Yes O No 🗨	within a Wetland?	ies - ino -		
Remarks:					
Hydrology					
Wetland Hydrology Indicators:			Cocondory Indicators (minimum of two required)		
Primary Indicators (minimum of on	ne required: check all that apply	)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Pla		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfid		Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizos	oheres along Living Roots (C3)	Moss Trim Lines (B16)		
☐ Water Marks (B1)	Presence of Red		Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Rec	luction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	☐ Thin Muck Surfa	ce (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in	n Remarks)	Stunted or Stressed Plants (D1)		
☐ Iron Deposits (B5)			Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery	y (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					
0.1 11 0. 10	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Wetland Hyd	drology Present? Yes O No 💿		
(includes capillary fringe)  Yes	<u> </u>				
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	otos, previous inspections), if ava	iilable:		
Domarko					
Remarks:  No hydro characteristics.					
No figuro characteristics.					

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

			ninant		Sampling Point: D-020		
	Absolute % Cover	Rel.	cies? – .Strat. ver	Indicator Status	Dominance Test worksheet:		
1. Acer nigrum	75	<b>_</b> _	78.9%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:		
2. Celtis occidentalis	15		15.8%	FACU	THIN I GO I SHOW		
3. Ulmus americana	5		5.3%	FACW	Total Number of Dominant Species Across All Strata: 1 (B)		
4	0		0.0%				
5	0		0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)		
6			0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)		
7	_		0.0%		Prevalence Index worksheet:		
8	0		0.0%		Total % Cover of: Multiply by:		
	05	= Tot	al Cover		OBL species 0 x 1 = 0		
Sapling-Sapling/Shrub Stratum (Plot size:)					FACW species		
1	0	Ц_	0.0%		FAC species x 3 =0		
2	0	Ц_	0.0%		FACU species 90 x 4 = 360		
3	0	Ц_	0.0%				
4	0	Ц_	0.0%		UPL species x 5 =		
5	0	Ц_	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%		Dominance Test is > 50%		
10			0.0%		Prevalence Index is ≤3.0 ¹		
		= Tot	al Cover				
Shrub Stratum (Plot size:)			0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)		
1			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2		H-	0.0%				
3		H-			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4		H-	0.0%		Definition of Vegetation Strata:		
5		H-	0.0%		Four Vegetation Strata:		
6		Н_	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.		
7		$\sqcup_{-}$	0.0%		(7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size:)	0	= Tot	al Cover		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%		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%		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 vines, approximately 20 ft (6 m) or more in height and less		
11	0	$\Box$	0.0%		than 3 in. (7.6 cm) DBH.		
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody		
		= Tot	al 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, including herbaceous vines, regardless of size, and woody		
1		닏_	0.0%		species, except woody vines, less than approximately 3 ft (1		
2	0	$\sqcup_{-}$	0.0%		m) in height.		
3	0	$\sqcup_{-}$	0.0%		Woody vines – Consists of all woody vines, regardless of		
4	0	Ц_	0.0%		height.		
5	0		0.0%		Hydrophytic		
6	0		0.0%		Vegetation		
	0	= Tot	tal Cover		Present? Yes No •		
Remarks: (Include photo numbers here or on a separate shee	a+ )				ı		
Kernarks. (Hiclade prioto numbers here of our a separate shee	ι.)						

Soil

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Color	Matrix (moist)	%	Redox Features Color (moist) %		Loc <sup>2</sup>	Texture	Remarks	
0-21	10YR	3/3	100	Color (moist) %	<u>rvbe</u>	LOC-	Loam	Remarks	
U-Z I							Loaiii		
	-						-		
<sup>1</sup> Type: C=Con	centration.	D=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated S	Sand Grains	<sup>2</sup> Locat	tion: PL=Pore Lining. M=Mat	rix	
Hydric Soil I	ndicators	:					Indicators for Problen	natic Hydric Soils 3.	
Histosol (				Dark Surface (S7)					
	pedon (A2)			Polyvalue Below Surface (S8)	) (MLRA 14	7,148)	2 cm Muck (A10) (M		
☐ Black Hist	ic (A3)			☐ Thin Dark Surface (S9) (MLR	A 147, 148	)	Coast Prairie Redox (MLRA 147,148)	(A16)	
Hydrogen	Sulfide (A4	1)		Loamy Gleyed Matrix (F2)				C 11 (F40)	
	Layers (A5)			Depleted Matrix (F3)			Piedmont Floodplain (MLRA 136, 147)	n Soils (F19)	
2 cm Muc	k (A10) (LR	R N)		Redox Dark Surface (F6)			☐ Very Shallow Dark S	Surface (TF12)	
	Below Dark		(11)	Depleted Dark Surface (F7)			Other (Explain in Re		
	k Surface (A	•	,	Redox Depressions (F8)			U Other (Explain in Re	silidiks)	
	ck Mineral	•	٧,	Iron-Manganese Masses (F1: MLRA 136)	2) (LRR N,				
	eyed Matrix	(\$4)		Umbric Surface (F13) (MLRA	136, 122)				
Sandy Re		(34)		Piedmont Floodplain Soils (F		148)	<sup>3</sup> Indicators of hy	ydrophytic vegetation and	
	Matrix (S6)			Red Parent Material (F21) (N			wetland hydro	ology must be present, urbed or problematic.	
Stripped i	viatrix (50)			Red Farent Waterial (121) (W	ILIXA 127,	147)	uniess distr		
Restrictive L	ayer (if ob	served):							
Туре:									
Depth (inc	hes):						Hydric Soil Present?	Yes O No 💿	
Remarks:						<u> </u>			

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-021		
Investigator(s): J. Stelly and C. Hoffi	man	Section, Township, Range:	S T R		
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope: 0.0% / 0.0 °		
Subregion (LRR or MLRA): LRR N	Lat.	: 37.68909 Lo	ong.: -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 o	on the site typical for this time of	year? Yes   No   (If no	o, explain in Remarks.)		
Are Vegetation, Soil			al Circumstances" present? Yes ● No ○		
Are Vegetation, Soil	, or Hydrology	problematic? (If needed	, explain any answers in Remarks.)		
Summary of Findings - At	ttach site map showing	sampling point locatio	ns, transects, important features, etc.		
<b>Hydrophytic Vegetation Present?</b>	Yes  No				
Hydric Soil Present?	Yes   No	Is the Sampled Area			
Wetland Hydrology Present?	Yes ● No ○	within a Wetland?			
Remarks: Wet-9					
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of or Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imager  Water-Stained Leaves (B9)  Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (stream gates)	True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Thin Muck Surfac Other (Explain in  ry (B7)  No Depth (inches): Depth (inches):	nts (B14) 2 Odor (C1) 3 Odor (C1) 4 Odor (C1) 5 Odor (C3) 5 Odor (C3) 6 Odor (	Surface Soil Cracks (B6)  ✓ Sparsely Vegetated Concave Surface (B8)  □ Drainage Patterns (B10)  □ Moss Trim Lines (B16)  □ Dry Season Water Table (C2)  □ Crayfish Burrows (C8)  □ Saturation Visible on Aerial Imagery (C9)  □ Stunted or Stressed Plants (D1)  □ Geomorphic Position (D2)  □ Shallow Aquitard (D3)  □ Microtopographic Relief (D4)  ✓ FAC-neutral Test (D5)		
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	tos, previous inspections), if ava	allable:		
Remarks:					

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

		-Species?		Sampling Point: <u>D-021</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer rubrum		<b>✓</b> 66.7%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2. Celtis laevigata		22.2%	FACW	
3. Ulmus americana	- 10	11.1%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0.0%		Species neross nii strata.
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	90 :	= Total Cove	r	0BL speci es x 1 =0
1.	, 0	0.0%		FACW species
2		0.0%		FAC speci es60 x 3 =180
3		0.0%		FACU speci es x 4 =0
4	_	0.0%		UPL species $0 \times 5 = 0$
5		0.0%		Column Totals: 90 (A) 240 (B)
6.		0.0%		Prevalence Index = B/A = 2.667
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	_	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		✓ Dominance Test is > 50%
0	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
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%		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%		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 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%		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%		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). Sapling stratum – Consists of woody plants, excluding woody
0	0			vines, approximately 20 ft (6 m) or more in height and less
1	0			than 3 in. (7.6 cm) DBH.
2	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	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		Lludraphytia
6	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	r	Present? Yes No
Remarks: (Include photo numbers here or on a separate she	et.)			
	- •-,			

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or cor	nfirm the a	absence of indicators.)	
Depth	Matrix		Re		-			
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	Texture	Remarks
0-21	10YR 3/1		5YR 4/6		C	M	Loam	
				-				
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I	ndicators:						Indicators for Proble	matia Hudria Sails 3.
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Below		(S8) (MLRA	147,148)	2 cm Muck (A10) (	MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redo	k (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	(540)
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TF12)
	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	
	Surface (A12)	,	✓ Redox Depress	sions (F8)			Other (Explain in F	eriiai ks)
	ck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	se Masses (	(F12) (LRR I	١,		
	•		Umbric Surface	e (F13) (MI	RA 136, 12	2)		
Sandy Gleg	yed Matrix (S4)		☐ Piedmont Floor				<sup>3</sup> Indicators of h	ydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hydr	ology must be present, turbed or problematic.
Stripped iv	10111 (30)		Red Parent Ma	iteriai (FZ I)	(IVILKA 127	, 147)	unless dis	dibed of problematic.
Restrictive La	yer (if observed):							
Туре:								
Depth (inch	nes):						Hydric Soil Present?	Yes ● No ○
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-022
Investigator(s): J. Stelly and C. Hoffman		Section, Township, Range: 5	S TR
Landform (hillslope, terrace, etc.): Fl	at	Local relief (concave, convex,	none): flat Slope: 0.0% / 0.0
Subregion (LRR or MLRA): LRR N	Lat.:	37.68118 Lo	ong.: -85.94736
Soil Map Unit Name: CrC - Crider silt lo			NWI classification: N/A
Are climatic/hydrologic conditions on th	e site typical for this time of ye	ar? Yes   No   (If no	o, explain in Remarks.)
Are Vegetation $\ \square$ , Soil $\ \square$ , o	r Hydrology 🔲 significantl	y disturbed? Are "Norma	al Circumstances" present? Yes   No
Are Vegetation	r Hydrology 🔲 naturally pi	roblematic? (If needed,	, explain any answers in Remarks.)
		ampling point locatio	ns, transects, important features, etc.
3	es ○ No •		
	es O No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present? Y	es O No 💿	within a Wetland?	163 - 110 -
Remarks:		·	
Hydrology			
Wetland Hydrology Indicators:			_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one r			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		Drainage Patterns (B10)
Saturation (A3)  Water Marks (B1)	<ul><li>Oxidized Rhizosphe</li><li>Presence of Reduce</li></ul>	eres along Living Roots (C3)	Moss Trim Lines (B16)
Sediment Deposits (B2)		tion in Tilled Soils (C6)	☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	. ,	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	U Other (Explain in Re	emarks)	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:	$\overline{}$		
	No Depth (inches):		
Water Table Present? Yes	No   Depth (inches):		drology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes	No   Depth (inches):	Wetland Hyd	drology Present? Yes O No •
Describe Recorded Data (stream gauge	e, monitoring well, aerial photo:	s, previous inspections), if ava	ailable:
Demonto			
Remarks:			
No hydro characteristics.			

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

		-Species?		Sampling Point: <u>D-022</u>
(Dlate)	Absolute	Rel Strat	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species
1. Acer nigrum		78.9%	FACU	That are OBL, FACW, or FAC: 0 (A)
2. Celtis occidentalis		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:
8		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	) — 95	= Total Cove	r	0BL speci es 0 x 1 = 0
1	0	0.0%		FACW speciles <u>5</u> x 2 = <u>10</u>
2.	0	0.0%		FAC species $0 \times 3 = 0$
3		0.0%		FACU speci es $90 \times 4 = 360$
4	_	0.0%		UPL speci es $0 \times 5 = 0$
5		0.0%		Column Totals: <u>95</u> (A) <u>370</u> (B)
6.	_	0.0%		Prevalence Index = B/A = 3.895
7		0.0%		
8.	_	0.0%		Hydrophytic Vegetation Indicators:
9.		0.0%		Rapid Test for Hydrophytic Vegetation
0		0.0%		Dominance Test is > 50%
		= Total Cove	r	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		0.0%		Morphological Adaptations 1 (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%		Indicators of hydric soil and wetland hydrology must 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%		(7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	0	= Total Cove	r	regardless of height. 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 in height.
5	0	0.0%		
6		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). Sapling stratum – Consists of woody plants, excluding woody
0	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less
l1	0	0.0%		than 3 in. (7.6 cm) DBH.
2	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
2	0	0.0%		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
4	0	0.0%		height.
5	0	0.0%		
6.	0	0.0%		Hydrophytic Vegetation
U		= Total Cove	r	Present? Yes No
			•	
Remarks: (Include photo numbers here or on a separate she	et.)			

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix	04		ox Featu	res1	1 2	Tt	Dama andra
(inches) 0-21	Color (moist) 10YR 3/3	<b>%</b> 100	Color (moist)	%	IVDe	Loc <sup>2</sup> _	<u>Texture</u> Loam	Remarks
	101K 3/3						LOdili	
				-				
				-				
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Covered	d or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Matrix	X
Hydric Soil I	ndicators:						Indicators for Problema	atic Hydric Soils <sup>3</sup> :
Histosol (A	<b>\1)</b>		Dark Surface (S	7)			2 cm Muck (A10) (MI	-
Histic Epip	edon (A2)		Polyvalue Below	Surface (	S8) (MLRA	147,148)		
☐ Black Histi	c (A3)		Thin Dark Surfa	ce (S9) (M	LRA 147, 1	48)	Coast Prairie Redox ( (MLRA 147,148)	A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed N	Matrix (F2)			Piedmont Floodplain	Soils (F10)
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	30113 (1 17)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)			Very Shallow Dark Su	urface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark S	urface (F7	<b>'</b> )		Other (Explain in Ren	
☐ Thick Dark	Surface (A12)		Redox Depression	ons (F8)				
Sandy Mud MLRA 147	ck Mineral (S1) (LRR i , 148)	N,	Iron-Manganese MLRA 136)	Masses (I	F12) (LRR I	N,		
	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)		
Sandy Rec			Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hyd	Irophytic vegetation and
Stripped M			Red Parent Mate					ogy must be present, bed or problematic.
Restrictive La	yer (if observed):							
Type:								
Depth (inch	nes):						Hydric Soil Present?	Yes ○ No •
Remarks:								

Project/Site: Telesto Solar Project		City/County:	Cecilia/Hardin	Sampling	Date: 23-Feb-21
Applicant/Owner: 7x Energy			State: KY	Sampling Point:	D-023
Investigator(s): J. Stelly and C. Hoffm	an	Section, Town	nship, Range: S	т	R
Landform (hillslope, terrace, etc.):	Flat	Local relief (co	ncave, convex, no	one): flat S	lope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N	L	— .at.: 37.67898	Long	 <b>J</b> ∴ -85.94926	Datum: WGS 1984
Soil Map Unit Name: CrB - Crider silt		i.			N/A
Are climatic/hydrologic conditions on	the site typical for this time	of year? Yes	No 🔾 (If no, e	explain in Remarks.)	
Are Vegetation 🗌 , Soil 🗌	, or Hydrology 🔲 signific	cantly disturbed?	Are "Normal (	Circumstances" present?	Yes   No
Are Vegetation, Soil	, or Hydrology	ally problematic?	(If needed, ex	xplain any answers in Rem	arks.)
Summary of Findings - Att	•	ng sampling po	int locations	s, transects, import	tant features, etc.
Hydrophytic Vegetation Present?	Yes ○ No •				
Hydric Soil Present?	Yes ○ No •		Sampled Area	Yes ○ No ●	
Wetland Hydrology Present?	Yes ○ No •	within	a Wetland?	res UNO U	
Remarks:		<u> </u>			
Underland and					
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicators (minimu	m of two required)
Primary Indicators (minimum of one				Surface Soil Cracks (B6)	
Surface Water (A1)	☐ True Aquatic I			Sparsely Vegetated Conca	ve Surface (B8)
High Water Table (A2)		fide Odor (C1)		Drainage Patterns (B10)	
Saturation (A3)  Water Marks (B1)		ospheres along Living F	Roots (C3)	Moss Trim Lines (B16)	
Sediment Deposits (B2)		Reduced Iron (C4)	(04)	Dry Season Water Table ( Crayfish Burrows (C8)	02)
Drift deposits (B3)	Thin Muck Su	Reduction in Tilled Soils	(66)	Saturation Visible on Aeria	al Imagery (CO)
Algal Mat or Crust (B4)	Other (Explair	• •		Stunted or Stressed Plants	
Iron Deposits (B5)	□ Опет (Ехріан	n in kemarks)		Geomorphic Position (D2)	(01)
Inundation Visible on Aerial Imagery	(B7)			Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)			ĺ	Microtopographic Relief (D	04)
Aquatic Fauna (B13)				FAC-neutral Test (D5)	
Field Observations:	$\overline{}$				
Surface Water Present? Yes	• •	es):			
Water Table Present? Yes	No   Depth (inche	es):		ology Present? Yes	No •
Saturation Present? (includes capillary fringe) Yes	No O Depth (inche	es):	Wetland Hydro	ology Present? Yes	NO S
Describe Recorded Data (stream gau	uge, monitoring well, aerial p	hotos, previous insp	ections), if availa	ıble:	
Domorko					
Remarks:					
No hydro characteristics.					

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

Tree Stratum (Plot size:)  %  1. Acer nigrum  2. Celtis occidentalis  3. Ulmus americana		-Species? Rel.Strat. Cover  78.9%	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
Acer nigrum     Celtis occidentalis     Ulmus americana	75	_		Number of Dominant Species
Celtis occidentalis     Ulmus americana		<b>✓</b> 78.9%		
3. Ulmus americana			FACU	That are OBL, FACW, or FAC:0(A)
		15.8%_	FACU	Total Number of Dominant
		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	0.0%		
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:)	95 =	Total Cove	r	OBL speci es x 1 = 0
1	0	0.0%		FACW species <u>5</u> x 2 = <u>10</u>
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 speci es $0 \times 5 = 0$
5	0	0.0%		Column Totals: 95 (A) 370 (B)
6	_	0.0%		Prevalence Index = B/A = 3.895
7	0	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 ≤3.0 ¹
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		 		☐ 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.
Herb Stratum (Plot size:)	0 =	Total Cove	r	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		0.0%		Sapling/shrub stratum – Consists of woody plants, excluding
1				vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2	0 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	0.0%		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			Sapling stratum – Consists of woody plants, excluding woody
0	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		Total Cove	r	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, including herbaceous vines, regardless of size, and woody
1				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 height.
4				
5				Hydrophytic
6		0.0%		Vegetation V
	0 =	= Total Cove	r	Present? Yes V NO V

		the depth ne				nfirm the a	absence of indicators.)
Depth	Matrix_		Color (moist)	ox Featur	Tvpe 1	1002	Touture Demontes
(inches) 0-21	Color (moist) 10YR 3/3	<b>%</b>	COIOT (MOIST)	<u></u>	rvbe	Loc <sup>2</sup> _	Texture Remarks  Loam
	- TOTK 3/3			-			Loan
							·
				-			
				-			
				-			
1 Type: C=Cond	centration D=Depletion	n RM=Reduc	ed Matrix, CS=Covere	d or Coated	d Sand Gra	ins 2Loca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I							
Histosol (A			☐ Dark Surface (S	7)			Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic Epip			Polyvalue Below		(8) (MI DA	147 149)	2 cm Muck (A10) (MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redox (A16)
	Sulfide (A4)		Loamy Gleyed N		LKA 147, I	40)	(MLRA 147,148)
_ ` `	Layers (A5)		Depleted Matrix				Piedmont Floodplain Soils (F19)
	(A10) (LRR N)		Redox Dark Sur				(MLRA 136, 147)
		11)	Depleted Dark S		)		
	Below Dark Surface (A	.11)	Redox Depression		)		Other (Explain in Remarks)
	Surface (A12)		☐ Iron-Manganese		:12) (I RR I	N.	
MLRA 147	ck Mineral (S1) (LRR N , 148)	۱,	MLRA 136)				
Sandy Gle	yed Matrix (S4)		Umbric Surface				<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Rec	dox (S5)		Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	wetland hydrology must be present,
Stripped M	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 127	7, 147)	unless disturbed or problematic.
Restrictive La	yer (if observed):						
Type:							
-	nes):						Hydric Soil Present? Yes ○ No ●
Remarks:	,						
Kemarks.							

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21		
Applicant/Owner: 7x Energy		State: _k	Y Sampling Point: D-024		
Investigator(s): J. Stelly and C. Hoff	fman	Section, Township, Range:	S T R		
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	, none): <u>flat</u> Slope: <u>0.0%</u> / <u>0.0</u> °		
Subregion (LRR or MLRA): LRR N	√ Lat.	: 37.67558 <b>L</b> o	ong.: -85.97091		
Soil Map Unit Name: Nb - Newark	silt loam, 0-2 percent slopes.		NWI classification: N/A		
Are climatic/hydrologic conditions o	on the site typical for this time of y	year? Yes ◉ No ◯ (If n	o, explain in Remarks.)		
Are Vegetation, Soil	, or Hydrology 🔲 significan	ntly disturbed? Are "Norm	al Circumstances" present? Yes  No		
Are Vegetation, Soil	, or Hydrology	problematic? (If needed	I, explain any answers in Remarks.)		
Summary of Findings - At	ttach site map showing	sampling point location	ons, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes   No				
Hydric Soil Present?	Yes   No	Is the Sampled Area			
Wetland Hydrology Present?	Yes ● No ○	within a Wetland?			
Remarks: Wet-12					
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of o	one required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)	True Aquatic Plar	nts (B14)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide	, ,	Drainage Patterns (B10)		
Saturation (A3)		heres along Living Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)	Presence of Redu	• •	☐ Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Redu	uction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	Thin Muck Surfac	ce (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 Image	ery (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					
0 0	4. ( ,	Wetland Hy	drology Present? Yes   No		
(includes capillary fringe) Yes					
Describe Recorded Data (stream g	gauge, monitoring well, aerial phot	tos, previous inspections), if av	ailable:		
Remarks:					
Remarks.					

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

			ninant		Sampling Point: D-024	
	Absolute % Cover	Rel.	cies? – .Strat. ver	Indicator Status	Dominance Test worksheet:	
1 . Acer rubrum	_50_		55.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:3(A)	
2. Celtis laevigata	20	<b>~</b> _	22.2%	FACW	T. LIN J. CD. C. L.	
3. Ulmus americana	20	<b>~</b> _	22.2%	FACW	Total Number of Dominant Species Across All Strata: 3 (B)	
4	0		0.0%			
5	0		0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)	
6			0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)	
7	_		0.0%		Prevalence Index worksheet:	
8	0		0.0%		Total % Cover of: Multiply by:	
	90	= Tot	al Cover		OBL species 0 x 1 = 0	
_Sapling-Sapling/Shrub Stratum_ (Plot size:)					FACW species 40 x 2 = 80	
1		<u> </u>	0.0%		FAC species 50 x 3 = 150	
2	0	Ц_	0.0%		FACU species	
3		Ц_	0.0%			
4	0	$\sqcup_{-}$	0.0%		· ·	
5	0	Ц_	0.0%		Column Totals: 90 (A) 230 (B)	
6	0	Ш_	0.0%		Prevalence Index = B/A =2.556_	
7	0		0.0%		Hydrophytic Vegetation Indicators:	
8	0		0.0%		Rapid Test for Hydrophytic Vegetation	
9			0.0%		✓ Dominance Test is > 50%	
10			0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>	
		= Tot	al Cover			
Shrub Stratum (Plot size:)			0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)	
1		П-	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2		<u> </u>	0.0%			
3		H-			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4		H-	0.0%		Definition of Vegetation Strata:	
5		H-	0.0%		Four Vegetation Strata:	
6		Н_	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.	
7	0	$\sqcup_{-}$	0.0%		(7.6 cm) or more in diameter at breast height (DBH),	
Herb Stratum (Plot size:)	0	= Tot	al Cover		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%		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%		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 vines, approximately 20 ft (6 m) or more in height and less	
11	0	$\Box$	0.0%		than 3 in. (7.6 cm) DBH.	
12	0	$\overline{\Box}$	0.0%		Shrub stratum – Consists of woody plants, excluding woody	
		= Tota	al 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, including herbaceous vines, regardless of size, and woody	
1	0	닏_	0.0%		species, except woody vines, less than approximately 3 ft (1	
2		$\sqcup_{-}$	0.0%		m) in height.	
3	0	$\sqcup_{-}$	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	= Tot	tal Cover	-	Present? Yes No	
Remarks: (Include photo numbers here or on a separate shee	at )				ı	
Remarks. (Miciade prioto numbers here of on a separate shee	zi. <i>)</i>					

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or cor	nfirm the a	absence of indicators.)	
Depth	Matrix		Redox Features		·			
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	Texture	Remarks
0-21	10YR 3/1		5YR 4/6		C	M	Loam	
				-				
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I	ndicators:						Indicators for Proble	matia Hudria Sails <sup>3</sup> .
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Below		(S8) (MLRA	147,148)	2 cm Muck (A10) (	MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redo	k (A16)
	Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	(540)
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TF12)
	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	
	Surface (A12)	,	✓ Redox Depress	sions (F8)			Other (Explain in F	eriiai ks)
	ck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	se Masses (	(F12) (LRR I	١,		
	•		Umbric Surface	e (F13) (MI	RA 136, 12	2)		
Sandy Gleg	yed Matrix (S4)		☐ Piedmont Floor				3 Indicators of h	ydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hydr	ology must be present, turbed or problematic.
Stripped iv	10111 (30)		Red Parent Ma	iteriai (FZ I)	(IVILKA 127	, 147)	unless dis	dibed of problematic.
Restrictive La	yer (if observed):							
Туре:								
Depth (inch	nes):						Hydric Soil Present?	Yes ● No ○
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date	e: 23-Feb-21
Applicant/Owner: 7x Energy		State:	(Y Sampling Point:	D-025
Investigator(s): J. Stelly and C. Hoffman		Section, Township, Range:	S TI	R
Landform (hillslope, terrace, etc.): F	at	Local relief (concave, convex	, none): flat Slope:	0.0%/0.0_ °
Subregion (LRR or MLRA): LRR N	Lat.:	37.67557 L	ong.: -85.97085	Datum: WGS 1984
Soil Map Unit Name: Nb - Newark silt I			NWI classification: N/A	
Are climatic/hydrologic conditions on th	e site typical for this time of ye	ar? Yes ⊙ No 🔾 (Ifn	o, explain in Remarks.)	
Are Vegetation $\ \square$ , Soil $\ \square$ , o	r Hydrology 🔲 significantl	y disturbed? Are "Norm	al Circumstances" present? Ye	s • No O
Are Vegetation 🗌 , Soil 🗌 , o	r Hydrology 🔲 naturally pi	roblematic? (If needed	I, explain any answers in Remarks.	)
Summary of Findings - Attac		ampling point location	ons, transects, important	features, etc.
, , ,	'es ○ No •			
Hydric Soil Present? Y	es O No 💿	Is the Sampled Area	Yes ○ No ●	
Wetland Hydrology Present? Y	'es ○ No •	within a Wetland?	163 C NO C	
Remarks:				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of t	two required)
Primary Indicators (minimum of one re			Surface Soil Cracks (B6)	
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Su	rface (B8)
High Water Table (A2)	☐ Hydrogen Sulfide O		Drainage Patterns (B10)	
Saturation (A3)  Water Marks (B1)		eres along Living Roots (C3)	Moss Trim Lines (B16)	
Sediment Deposits (B2)	Presence of Reduce		Dry Season Water Table (C2)	
Drift deposits (B3)	Thin Muck Surface	tion in Tilled Soils (C6)	Crayfish Burrows (C8)  Saturation Visible on Aerial Imag	aon. (C0)
Algal Mat or Crust (B4)	Other (Explain in Re	• •	Stunted or Stressed Plants (D1)	
Iron Deposits (B5)	Uther (Explain in K	emarks)	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:	$\overline{}$			
	No Depth (inches):			
Water Table Present? Yes	No   Depth (inches):		V 0 N	lo
Saturation Present? (includes capillary fringe) Yes	No   Depth (inches):	Wetland Hy	drology Present? Yes O N	10 🕒
Describe Recorded Data (stream gauge	e, monitoring well, aerial photo:	s, previous inspections), if av	ailable:	
Demonto				
Remarks:				
No hydro characteristics.				

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

		-Species?		Sampling Point: <u>D-025</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum		<b>✓</b> 58.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Celtis occidentalis		35.3%	FACU	
3. Ulmus americana		5.9%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0.0%		Species Across Air Strata.
5		0.0%		Percent of dominant Species
6		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:
Sapling-Sapling/Shrub Stratum (Plot size:	85 :	= Total Cove	r	0BL speciles <u>0</u> x 1 = <u>0</u>
		0.0%		FACW species <u>5</u> x 2 = <u>10</u>
1		0.0%		FAC species x 3 =0
2.		0.0%		FACU speciles 80 x 4 = 320
3		0.0%		UPL species $0 \times 5 = 0$
4		0.0%		Column Totals: <u>85</u> (A) <u>330</u> (B)
5	_	0.0%		
7		0.0%		Prevalence Index = B/A = 3.882
8		0.0%		Hydrophytic Vegetation Indicators:
9		0.0%		Rapid Test for Hydrophytic Vegetation
0		0.0%		☐ Dominance Test is > 50%
		= Total Cove	r	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		0.0%	•	Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		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%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		= Total Cove	r	(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%		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%		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%		ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding woody
0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1  2		0.0%		Shrub stratum – Consists of woody plants, excluding woody
		= Total Cove	r	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, 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		0.0%		Woody vines – Consists of all woody vines, regardless of height.
4		0.0%		
5		0.0%		Hydrophytic
6	0	0.0%		Vegetation Present?  Yes ○ No ●
	0	= Total Cove	er	rieseitt:
Remarks: (Include photo numbers here or on a separate		= Total Cove	er	Present? Yes No •

		the depth ne				nfirm the a	absence of indicators.)
Depth	Matrix_		Color (moist)	ox Featur	Tvpe 1	1002	Touture Demontes
(inches) 0-21	Color (moist) 10YR 3/3	<b>%</b>	COIOT (MOIST)	<u></u>	rvbe	Loc <sup>2</sup> _	Texture Remarks  Loam
	- TOTK 3/3			-			Loan
							·
				-			
				-			
				-			
<sup>1</sup> Type: C=Conc	centration D=Depletion	n RM=Reduc	ed Matrix, CS=Covere	d or Coated	d Sand Gra	ins 2Loca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I							
Histosol (A			☐ Dark Surface (S	7)			Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic Epip			Polyvalue Below		(8) (MI DA	147 149)	2 cm Muck (A10) (MLRA 147)
Black Histi			Thin Dark Surfa				Coast Prairie Redox (A16)
	Sulfide (A4)		Loamy Gleyed N		LKA 147, I	40)	(MLRA 147,148)
_ ` `	Layers (A5)		Depleted Matrix				Piedmont Floodplain Soils (F19)
	(A10) (LRR N)		Redox Dark Sur				(MLRA 136, 147)
		11)	Depleted Dark S		)		
	Below Dark Surface (A	.11)	Redox Depression		)		Other (Explain in Remarks)
	Surface (A12)		☐ Iron-Manganese		:12) (I RR I	N.	
MLRA 147	ck Mineral (S1) (LRR N , 148)	۱,	MLRA 136)				
Sandy Gle	yed Matrix (S4)		Umbric Surface				<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Rec	dox (S5)		Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	wetland hydrology must be present,
Stripped M	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 127	7, 147)	unless disturbed or problematic.
Restrictive La	yer (if observed):						
Type:							
-	nes):						Hydric Soil Present? Yes ○ No ●
Remarks:	,						
Kemarks.							

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: KY	Sampling Point: D-026
Investigator(s): J. Stelly and C. Hoffn	mann	Section, Township, Range: S	T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat.:	37.67747 Loi	ng.: -85.97126
Soil Map Unit Name: Mv - Melvin si	It loam		NWI classification: N/A
Are climatic/hydrologic conditions or	n the site typical for this time of ye	ear? Yes   No (If no	, explain in Remarks.)
Are Vegetation . , Soil .			I Circumstances" present? Yes  No
Are Vegetation . , Soil .	, or Hydrology	roblematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At	tach site map showing s	ampling point location	ns, 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?	103 0 100 0
Remarks: Wetland 13			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of on	ne required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide (	, ,	Drainage Patterns (B10)
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduc	• ,	Dry Season Water Table (C2)
Sediment Deposits (B2)		tion in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)  Algal Mat or Crust (B4)	☐ Thin Muck Surface	• •	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Other (Explain in R	Remarks)	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Imager	v (R7)		Geomorphic Position (D2) Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)	, (5.7)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes   •	No Depth (inches):	4	
Water Table Present? Yes	No Depth (inches):		
Saturation Present? (includes capillary frings)  Yes	No Depth (inches):	Wetland Hyd	rology Present? Yes   No
(includes capillary fringe)  Describe Recorded Data (stream ga		s. previous inspections), if avai	ilable:
Remarks:			

		DC	:2		Sampling Point: D-026
Tree Stratum (Plot size:)	Absolute % Cover	Re	ecies? - el.Strat. ever	Indicator Status	
1. Acer rubrum	50	✓.	55.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:3(A)
2. Celtis laevigata	20	✓.	22.2%	FACW	Tabel Neurolan of Donate and
3. Ulmus americana	20	✓.	22.2%	FACW	Total Number of Dominant Species Across All Strata: 3 (B)
4	0		0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6	0		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0	Ш.	0.0%		Prevalence Index worksheet:
8	0	$\sqcup$	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:		= To	tal Cover	r	0BL speci es x 1 =0
1			0.0%		FACW species <u>40</u> x 2 = <u>80</u>
2			0.0%		FAC species
3			0.0%		FACU speci es $0 \times 4 = 0$
4			0.0%		UPL speci es $0 \times 5 = 0$
5			0.0%		Column Totals: 90 (A) 230 (B)
6			0.0%		Prevalence Index = B/A = 2.556
7	0		0.0%		
8	0		0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9	_		0.0%		✓ Dominance Test is > 50%
0	0		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= To	tal Cover	r	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%		Four Vegetation Strata:
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size:)		= To	tal Cover	r	of height.
1	0		0.0%		Sapling/shrub stratum – Consists of woody plants, excluding
		$\Box$	0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb stratum – Consists of all herbaceous (non-woody) plants,
2 3		$\Box$	0.0%		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		0.0%		in height.
6			0.0%		Five Venetation Streets
7	0		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).
0.	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
1	0		0.0%		than 3 in. (7.6 cm) DBH.
2	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.  Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		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.
2. 3.		$\Box$	0.0%		Woody vines – Consists of all woody vines, regardless of
3 4			0.0%		height.
5			0.0%		
- · ·			0.0%		Hydrophytic Vegetation
6		 _ T/	otal Cove	r	Present? Yes No
		- 10	rai cove	•	1

Soil Sampling Point: D-026

	ption: (Describe to Matrix	the depth n		t the indic		nfirm the a	absence of indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	<u> </u>	Tvpe 1	Loc2	Texture	Remarks
0-20	10YR 3/1	80	5YR 4/6	20	C	M	Loam	Remarks
							Louin	
							-	
							-	·
1		- DM D	M CC C			21	tion Di Done Linion M M	
		n. RIVI=Reduc	ed Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=N	iatrix
Hydric Soil II							Indicators for Problem	ematic Hydric Soils 3:
Histosol (A			Dark Surface (				2 cm Muck (A10)	(MLRA 147)
Histic Epip			Polyvalue Belo				Coast Prairie Red	
Black Histi	c (A3)		Thin Dark Surf	ace (S9) (N	/ILRA 147, 1	48)	(MLRA 147,148)	0X (A10)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)	)		Piedmont Floodp	lain Soils (F19)
Stratified L	_ayers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Su	ırface (F6)			Very Shallow Dar	k Surface (TF12)
Depleted E	Below Dark Surface (A	.11)	Depleted Dark	Surface (F	7)		Other (Explain in	
	Surface (A12)	•	✓ Redox Depress	sions (F8)			Other (Explain in	Kernarks)
	ck Mineral (S1) (LRR N	٧.	☐ Iron-Manganes	se Masses (	(F12) (LRR N	١,		
MLRA 147	, 148)	-1	MLRA 136)					
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (MI	-RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLR	A 148)	<sup>3</sup> Indicators of	hydrophytic vegetation and
Stripped M			Red Parent Ma	iterial (F21)	) (MLRA 127	', 147)		drology must be present, isturbed or problematic.
	. ,							
Restrictive La	yer (if observed):							
Туре:								
Depth (inch	nes):						Hydric Soil Present?	Yes   No
Remarks:								
Tromaino.								

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampling Da	te: 23-Feb-21
Applicant/Owner: 7x Energy				State: KY	<b>Y</b> :	Sampling Point:	D-027
Investigator(s): J. Stelly and C. Ho	ffmann		Section, Town	nship, Range: S	}	т	R
Landform (hillslope, terrace, etc.):		L	ocal relief (co	ncave, convex, r	none):	Slope:	:_0.0_ %/ 0.0 °
Subregion (LRR or MLRA): LRR	N		37.67747	Loi	ng.: -85.971	126	Datum: WGS 1984
Soil Map Unit Name: Nb - Newark						lassification: N/A	
Are climatic/hydrologic conditions	on the site typ	ical for this time of yea	ır? Yes 💿	No 🔾 (If no	, explain in R		_
Are Vegetation . , Soil .	, or Hydrolo	gy 🗌 significantly	disturbed?	Are "Norma	l Circumstan	ces" present? Y	es   No
Are Vegetation . , Soil .	, or Hydrolo	gy 🗌 naturally pro	oblematic?	(If needed,	explain any a	answers in Remarks	s.)
Summary of Findings - A		<u> </u>	mpling po	int location	ns, transe	ects, importan	t features, etc.
Hydrophytic Vegetation Present?		No 💿			<del></del>		
Hydric Soil Present?	Yes $\bigcirc$	No •		Sampled Area	Yes O No	. (•)	
Wetland Hydrology Present?	Yes $\bigcirc$	No •	within	a Wetland?	162 ~ 140	,	
Remarks:							
Hydrology							
Wetland Hydrology Indicators:					Secondary In	ndicators (minimum of	two required)
Primary Indicators (minimum of	one required; o					Soil Cracks (B6)	
Surface Water (A1)		True Aquatic Plants			Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od				e Patterns (B10)	
Saturation (A3) Water Marks (B1)		Oxidized Rhizospher		Roots (C3)		im Lines (B16)	
Sediment Deposits (B2)		Presence of Reduced Recent Iron Reduction		(04)		son Water Table (C2)	
Drift deposits (B3)		Thin Muck Surface (		(C6)		Burrows (C8) on Visible on Aerial Ima	agory (CO)
Algal Mat or Crust (B4)			•			or Stressed Plants (D1	
Iron Deposits (B5)		Other (Explain in Re	marks)			phic Position (D2)	,
Inundation Visible on Aerial Imag	ery (B7)					Aquitard (D3)	
Water-Stained Leaves (B9)	, . ,					oographic Relief (D4)	
Aquatic Fauna (B13)						itral Test (D5)	
Field Observations:							
Surface Water Present? Yes		Depth (inches):					
Water Table Present? Yes	O No 💿	Depth (inches): _				0	
Saturation Present? (includes capillary fringe)  Yes	○ No •	Depth (inches): _		Wetland Hyd	rology Prese	nt? Yes O I	No 🖲
Describe Recorded Data (stream	gauge, monitor	ring well, aerial photos	, previous insp	pections), if avai	ilable:		
Remarks:							

		-Species? -		Sampling Point: D-027
	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	
4. A wlam	50	<b>✓</b> 58.8%	FACU	Number of Dominant Species That are ORL FACIN or FAC:
1. Acer nigrum				That are OBL, FACW, or FAC:0 (A)
2. Celtis occidentalis	30	<b>✓</b> 35.3%	FACU	Total Number of Dominant
3. Ulmus americana	5	5.9%	FACW	Species Across All Strata: 2 (B)
4	0	0.0%		
***				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6	0	0.0%		That the obe, then, of the
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
0				
Sapling-Sapling/Shrub Stratum (Plot size:	85	= Total Cover	-	0BL species 0 x 1 = 0
		0.000		FACW species <u>5</u> x 2 = <u>10</u>
1		0.0%		FAC species x 3 =
2	0	0.0%		
3	0	0.0%		FACU species $80$ x 4 = $320$
4		0.0%		UPL species $0 \times 5 = 0$
11.				Column Totals: 85 (A) 330 (B)
5	0	0.0%		Cordina locals (A) (7)
6	0	0.0%		Prevalence Index = B/A = 3.882
7	0	0.0%		Lludraphytia Vagatatica Indicatora
8		0.0%		Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= Total Cover	-	
	0	0.00/		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0			Problematic Hydrophytic Vegetation - (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.
		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.
	0	0.0%		Sapling/shrub stratum – Consists of woody plants, excluding
1				vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2		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%		, ,
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%		
		0.0%		Five Vegetation Strata:
7	_	$\neg$		Tree - Woody plants, excluding woody vines, approximately 20
8	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%		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.
		$\neg$		Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		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 (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	Trosonti
Remarks: (Include photo numbers here or on a separate shee	et.)			
	,			

Soil Sampling Point: D-027

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix	04		ox Featu	res1	1 2	Taukuma	Damanta
(inches) 0-21	Color (moist) 10YR 3/1	<u>%</u> 100	Color (moist)	%	IVDE	Loc <sup>2</sup> _	Texture Loam	Remarks
	- 101K 3/1						LOdili	
							-	
				-				
<sup>1</sup> Type: C=Cond	entration. D=Depletion	n. RM=Redu	ced Matrix, CS=Covered	d or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Matrix	х
Hydric Soil I	ndicators:						Indicators for Problema	atic Hydric Soils 3:
Histosol (A	<b>N1</b> )		Dark Surface (S	7)			2 cm Muck (A10) (MI	-
Histic Epip	edon (A2)		Polyvalue Below	Surface (	S8) (MLRA	147,148)		
Black Histi	c (A3)		Thin Dark Surface	ce (S9) (M	LRA 147, 1	48)	Coast Prairie Redox ( (MLRA 147,148)	A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed N	Matrix (F2)			Piedmont Floodplain	Soils (F19)
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	3013 (17)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)			Very Shallow Dark Su	urface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark S	urface (F7	")		Other (Explain in Rer	marks)
Thick Dark	Surface (A12)		Redox Depression	ons (F8)				·
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	١,	Iron-Manganese MLRA 136)	Masses (I	F12) (LRR I	٧,		
	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)		
Sandy Red			Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hyd	drophytic vegetation and ogy must be present,
Stripped M			Red Parent Mate	erial (F21)	(MLRA 127	7, 147)		rbed or problematic.
Dankaintina I a	(:£ - b 1)							
Type:	yer (if observed):							
• • • •	nes):						Hydric Soil Present?	Yes O No •
	les)							
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State:	(Y Sampling Point: D-028
Investigator(s): J. Stelly and C. Hoff	fmann	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex	, none): flat Slope:0.0 _ % /0.0 °
Subregion (LRR or MLRA): LRR N	\ Lat.	: 37.68294 <b>L</b> o	ong.: -85.97423 Datum: WGS 1984
Soil Map Unit Name: Mv - Melvin s		07100271	NWI classification: PFO1A
Are climatic/hydrologic conditions o		year? Yes ● No ○ (If n	no, explain in Remarks.)
		•	V
Are Vegetation . , Soil .		-	and the second s
Are Vegetation U , Soil U  Summary of Findings - A		•	I, explain any answers in Remarks.) Ons, 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?	Yes ♥ No ∪
Remarks: Wet-14			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plan	• •	Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2)	Hydrogen Sulfide	, ,	Drainage Patterns (B10)
Saturation (A3)		heres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Redu	iced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Redu	uction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Surfac	e (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 Image	∍ry (B7)		Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:	<del></del>		
Surface Water Present? Yes	1 ,	4	
Water Table Present? Yes	No Depth (inches):		rdrology Present? Yes  No
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):		drology Present? Yes • No ·
Describe Recorded Data (stream g	gauge, monitoring well, aerial phot	tos, previous inspections), if av	ailable:
Remarks:			

Absolute   Resizura   Processor   Resizura				cies? -		Sampling Point: <u>D-028</u>
1. Near naturum    1. Near naturum   20		Absolute			Indicator	Dominance Test worksheet:
1. Aser nabum	Tree Stratum (Plot size:)	% Cover	Cov	er	Status	Number of Deminent Charles
2. Cettls televisate 3. Umus meritania 20	1 Acer rubrum	50	<b>✓</b>	55.6%	FAC	
3	••			22.2%	FΔCW	
4						
S			_		FACVV	Species Across All Strata:3 (B)
That Are OBL, FACW, or FAC:   100,00%			<u>H</u> –	0.0%		
6	5	0	Ш_	0.0%		
7				0.0%		That Are Obl., FACW, OF FAC.
8.   0   0.0%   Total 2% Cover Of: Multibly by:				0.0%		Prevalence Index worksheet:
Sabling Spiling / Shrub Stratum   (Plot size:			$\Box$	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling-Shrub Stratum   (Plot size:     0			= Tota	al Cover		OBI species 0 x 1 = 0
1.	Sapling-Sapling/Shrub Stratum (Plot size:	)	- 101	ui oovei		
2.   0   0.0%   FACU species   0   x 4 = 0   0   0   0   0   0   0   0   0   0				0.0%		
A		0	$\Box$	0.0%		FAC species $\underline{50}$ x 3 = $\underline{150}$
4			$\overline{\Box}$			FACU species $0 \times 4 = 0$
4.			$H^{-}$			UPL speciles
Section   Sec	4		<u>H</u> –			•
No.	5		<u> </u>	0.0%		COLUMN 10TALS:
8.	6	0	Ц_	0.0%		Prevalence Index = B/A = 2.556
8.	7	0	$\square$ _	0.0%		Hydrophytic Vegetation Indicators:
9.		_		0.0%		
O		_		0.0%		
Shrub Stratum   (Plot size:   )			$\Box$	0.0%		
Strubum   (Plot size:   )   0   0.0%	U					✓ Prevalence Index is ≤3.0 <sup>1</sup>
Problematic Hydrophytic Vegetation ¹ (Explain)	Shrub Stratum (Plot size:)		= 10ta	ai Cover		
3.	1	0	$\sqcup$ _	0.0%		l —
3.	2.	0		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
4.				0.0%		1 Indicators of hydric soil and wetland hydrology must
5.			$\Box$	0.0%		
6.			<u> </u>			Definition of Vegetation Strata:
Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.    Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.   Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of size, and all other plants less than 3.28 ft (1 m) tall.   Herb stratum - Consists of woody plants, excluding woody vines, less than 3.28 ft tall.   Woody vines - Consists of all woody vines greater than 3.28 ft in height.   Five Vegetation Strata:   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 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 vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.   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.   Consists of woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.   Herb stratum - Consists of all herbaceous (non-woody) plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.   Herb stratum - Consists of all woody vines, regardless of height.   Herb stratum - Consists of all woody vines, regardless of height.   Herb stratum - Consists of all woody vines, regardless of height.   Herb stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.   Herb stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (1 to 6 m) in height.   Herb stratum - Consists of woody p			H-			_
Note	6	0	$\sqcup$ -	0.0%		9
Herb Stratum	7	0	$\sqcup_{-}$	0.0%		
1.	Herb Stratum (Plot size:	0	= Tota	al Cover		of height.
2.		0		0.0%		
3.			<u> </u>			, ,
4.			<u>H</u> –			
5.	3		<u>H</u> –			
5.	4	0	$\sqcup$ _	0.0%		
7.	5	0	$\square$ _	0.0%		
7.	6	0		0.0%		Five Vegetation Strata:
8.	7.	0		0.0%		•
9.		_	$\Box$	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.  2.						
1.			<del> </del> -			
Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.    Comparison of the proximate	. • .		⊢-			, , , , ,
Vines, approximately 3 to 20 ft (1 to 6 m) in height.  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.  O 0.0% species, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vines - Consists of all woody vines, regardless of height.  Hydrophytic Vegetation Present?  Hydrophytic Vegetation Present?  No 0 0.0% No 0		0	닏_	0.0%		, ,
Woody Vine Stratum       (Plot size:	2	0	$\sqcup$ _	0.0%		
1. O O.0% including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.  3. O O.0% Woody vines – Consists of all woody vines, regardless of height.  5. O O.0% Hydrophytic Vegetation Present? Yes No O	Woody Vino Stratum (Plot size:	0	= Tota	al Cover		
2.		0		0.0%		
3						
4						, ,
4	3	0	$\sqcup$ _	0.0%		
5			$\sqcup$ _	0.0%		neigni.
6		0		0.0%		
0 = Total Cover Present? Yes ● No ○			$\Box$	0.0%		Vogotation
	U					
Remarks: (Include photo numbers here or on a separate sheet.)			- 101	ai cove	•	
	Remarks: (Include photo numbers here or on a separate she	et.)				

Soil Sampling Point: D-028

Profile Descr		the depth n				nfirm the a	absence of indicators.)	
Depth	Matrix			dox Featu	1			
(inches) 0-21	Color (moist) 10YR 3/1	<b>%</b>	Color (moist) 5YR 4/6	<b>%</b> 20	Tvpe C	Loc <sup>2</sup>	Texture	Remarks
	101K 3/1		31K 4/0			IVI	Loam	
			-		-			
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletion	n. RM=Reduc	ed Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=M	atrix
Hydric Soil I			_				Indicators for Proble	ematic Hydric Soils 3:
Histosol (	•		Dark Surface (				2 cm Muck (A10)	
	pedon (A2)		Polyvalue Belo				Coast Prairie Redo	
Black Hist			Thin Dark Surf			48)	(MLRA 147,148)	, (110 <i>)</i>
	Sulfide (A4)		Loamy Gleyed		)		Piedmont Floodpla	ain Soils (F19)
	Layers (A5)		Depleted Matri				(MLRA 136, 147)	
	k (A10) (LRR N)		Redox Dark Su	` ,	<b>-</b> \		Very Shallow Dark	k Surface (TF12)
	Below Dark Surface (A	.11)	<ul><li>✓ Depleted Dark</li><li>✓ Redox Depress</li></ul>		/)		Other (Explain in	Remarks)
	k Surface (A12)				(E12) (LDD N	d.		
Sandy Mu MLRA 147	ck Mineral (S1) (LRR N 7, 148)	۱,	☐ Iron-Manganes MLRA 136)					
	yed Matrix (S4)		Umbric Surface				3 Indicators of	hydrophytic vegetation and
Sandy Red			☐ Piedmont Floo				wetland hyd	Irology must be present,
☐ Stripped N	Matrix (S6)		Red Parent Ma	terial (F21)	) (MLRA 127	7, 147)	unless dis	sturbed or problematic.
Restrictive La	ayer (if observed):							
Type:								
Depth (incl	nes):						Hydric Soil Present?	Yes ● No ○
Remarks:								

Project/Site: Telesto Solar Project	City/C	County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: KY	Sampling Point: D-029
Investigator(s): J. Stelly and C. Hoffmann	Section	on, Township, Range: S	T R
Landform (hillslope, terrace, etc.): Flat	Local re	elief (concave, convex, r	none): flat Slope: _0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat.: 37.683	305 <b>Lor</b>	ng.: -85.97407 Datum: WGS 1984
Soil Map Unit Name: Mv - Melvin silt loam	37.000		NWI classification: PFO1A
Are climatic/hydrologic conditions on the site typi	cal for this time of year?	Yes   No   (If no	, explain in Remarks.)
Are Vegetation, Soil, or Hydrolog			Circumstances" present? Yes  No
Are Vegetation	gy  aturally problema		explain any answers in Remarks.)
		•	ns, 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?	res © NO C
Remarks:			
<u> </u>			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; o			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 alon		Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Sediment Deposits (B2)	Presence of Reduced Iron ( Recent Iron Reduction in Ti	• •	Dry Season Water Table (C2)
Drift deposits (B3)		liled Solis (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Uther (Explain in Remarks)		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):		rology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	wetiand Hyd	rology Present? Yes O No •
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previ	ious inspections), if avai	lable:
Remarks:			

		Dominant		Sampling Point: D-029
Tree Stratum (Plot size:)	Absolute % Cover	itonotiut.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	50	✓ 58.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:0(A)
2. Celtis occidentalis	30	<b>✓</b> 35.3%	FACU	
3. Ulmus americana	5	5.9%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4	0_	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	_	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	85	= Total Cover		0BL speci es <u>0</u> x 1 = <u>0</u>
		0.0%		FACW species <u>5</u> x 2 = <u>10</u>
1		0.0%		FAC species x 3 =0
2		0.0%		FACU speciles $80 \times 4 = 320$
3		0.0%		UPL species $0 \times 5 = 0$
4 5		0.0%		Column Totals: 85 (A) 330 (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%		☐ Dominance Test is > 50%
		= Total Cover		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		0.0%		Morphological Adaptations 1 (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 5		0.0%		Definition of Vegetation Strata:
		0.0%		Four Vegetation Strata:
6	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%		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	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
4	0	0.0%		in height.
5	0	0.0%		
6 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%		diameter at breast height (DBH).
10		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:)	0	0.0%		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				, ,
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4				
5		0.0%		Hydrophytic
6	0			Vegetation Present?  Yes No   No
		- rotal cover		
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil Sampling Point: D-029

	•	the depth n				nfirm the a	absence of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	lox Featur %	Tvpe 1	Loc²	Texture Remarks	
0-21	10YR 3/1	100	Loam		IVDE	LUC-	Loam Remarks	
	- TOTK 3/1		LOGITI -		-	-	Loan	
							· ·	
1 Tymes C. Come	contration D. Donlatia	n DM Dadua	ad Matrix CS Cayora	d or Cootoo	l Cand Cra	ino 21 000	stion. DI Doro Lining M Matrix	
		on. Rivi=Reduc	ed Matrix, CS=Covere	d or Coated	i Sand Gra	ins ²Loca	ation: PL=Pore Lining. M=Matrix	
Hydric Soil II				_,			Indicators for Problematic Hydric Soils 3:	
Histosol (A			Dark Surface (S				2 cm Muck (A10) (MLRA 147)	
Histic Epip			Polyvalue Below				Coast Prairie Redox (A16)	
Black Histi			Thin Dark Surfa	ce (S9) (ML	RA 147, 1	48)	(MLRA 147,148)	
	Sulfide (A4)		Loamy Gleyed N	∕latrix (F2)			Piedmont Floodplain Soils (F19)	
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)			☐ Very Shallow Dark Surface (TF12)	
Depleted E	Below Dark Surface (A	11)	Depleted Dark S	Surface (F7)	)		Other (Explain in Remarks)	
☐ Thick Dark	Surface (A12)		Redox Depressi	ons (F8)				
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N	٧,	Iron-Manganese MLRA 136)	e Masses (F	12) (LRR N	١,		
	yed Matrix (S4)		Umbric Surface	(F13) (MLF	RA 136, 12	2)		
Sandy Red			Piedmont Flood	plain Soils (	(F19) (MLR	A 148)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Stripped M			Red Parent Mat				wetland hydrology must be present, unless disturbed or problematic.	
	(00)		Red Farent Mat	cridi (i z i)	(WEIGT 12)	, ,	diffess distarbed of problematic.	
Restrictive La	yer (if observed):							
Туре:							Hydric Soil Present? Yes No •	
Depth (inch	nes):						Hydric Soil Present? Yes ○ No ●	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-030
Investigator(s): J. Stelly and C. Hoffr	mann	Section, Township, Range:	S TR
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N		37.68273 Lo	ong.: -85.97141
Soil Map Unit Name: Lawrence silt			NWI classification: N/A
Are climatic/hydrologic conditions or	n the site typical for this time of ye	ar? Yes   No (If no	o, explain in Remarks.)
Are Vegetation, Soil		•	al Circumstances" present? Yes   No
Are Vegetation, Soil	, or Hydrology	roblematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At	tach site map showing sa	ampling point locatio	ns, 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?	Tes C NO C
Remarks: Wet-15			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of on			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		✓ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		☐ Drainage Patterns (B10)
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce	· ·	☐ Dry Season Water Table (C2)
Sediment Deposits (B2)		tion in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface	• •	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	emarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	-		Geomorphic Position (D2)
Inundation Visible on Aerial Imager	y (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	
		4	
Water Table Present? Yes	- op (	Wetland Hv	drology Present? Yes  No
Saturation Present? (includes capillary fringe) Yes	No O Depth (inches):		alongy Fresent: 103 0 No 0
Describe Recorded Data (stream ga	nuge, monitoring well, aerial photos	s, previous inspections), if ava	ailable:
Remarks:			

		-Species?		Sampling Point: D-030
	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Deminant Charles
1. Acer rubrum	50	<b>✓</b> 55.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2. Celtis laevigata		22.2%	FACW	
		22.2%	FACW	Total Number of Dominant
3. Ulmus americana			FACV	Species Across All Strata:3(B)
4				
5	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6		0.0%		That Are Obl., FACW, or FAC.
7		0.0%		Prevalence Index worksheet:
8.		0.0%		Total % Cover of: Multiply by:
		= Total Cove	r	
Sapling-Sapling/Shrub Stratum (Plot size:	) — 70	- Total Cove	1	
1	0	0.0%		FACW species <u>40</u> x 2 = <u>80</u>
2	0	0.0%		FAC species <u>50</u> x 3 = <u>150</u>
		0.0%		FACU speci es
3				UPL species
4	0	0.0%_		l
5	0	0.0%		Column Totals: 90 (A) 230 (B)
6	0	0.0%		Prevalence Index = B/A = 2.556_
7	0	0.0%		
8.	_	0.0%		Hydrophytic Vegetation Indicators:
		0.0%		Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
0		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= Total Cove	r	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)
		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless
		= Total Cove	r	of height.
Herb Stratum (Plot size:)				Sapling/shrub stratum – Consists of woody plants, excluding
1				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%		
		0.0%		Five Vegetation Strata:
7	_			Tree - Woody plants, excluding woody vines, approximately 20
8	0			ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9	0			Sapling stratum – Consists of woody plants, excluding woody
0	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less
1.	0	0.0%		than 3 in. (7.6 cm) DBH.
2.	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,
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
	0	0.0%		height.
4				
5		0.0%_		Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cove	er	Present? Yes No U
Pomarke: (Include phote numbers here as an a consultable				<u> </u>
Remarks: (Include photo numbers here or on a separate shee	≠l. <i>)</i>			

Soil Sampling Point: D-030

Depth	Matrix			dox Featu				
inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-21	10YR 3/1	80	5YR 4/6	_ 20		M	Loam	
	-						-	
e: C=Conc	entration. D=Depletior	n. RM=Redu	iced Matrix, CS=Cover	ed or Coate	d Sand Grai	ns <sup>2</sup> Loca	tion: PL=Pore Lining. M=M	atrix
	ndicators:						Indicators for Proble	ematic Hydric Soils 3:
Histosol (A			Dark Surface (				2 cm Muck (A10)	(MLRA 147)
Histic Epip			Polyvalue Belo				Coast Prairie Redo	
Black Histi			Thin Dark Surf	ace (S9) (N	ILRA 147, 1	48)	(MLRA 147,148)	ν (Π10)
	Sulfide (A4)		Loamy Gleyed				Piedmont Floodpl	ain Soils (F19)
	ayers (A5)		Depleted Matri				(MLRA 136, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Su	` '			Very Shallow Dar	c Surface (TF12)
Depleted E	Below Dark Surface (A1	11)	Depleted Dark		7)		Other (Explain in	Remarks)
Thick Dark	Surface (A12)		Redox Depress					
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	ı	Iron-Manganes MLRA 136)	e Masses (	F12) (LRR N	Ι,		
Sandy Gley	yed Matrix (S4)		Umbric Surface	e (F13) (ML	.RA 136, 12	2)	2	
Sandy Red			☐ Piedmont Floo	dplain Soils	(F19) (MLR	A 148)	<sup>3</sup> Indicators of	hydrophytic vegetation and lrology must be present,
Stripped M	latrix (S6)		Red Parent Ma	terial (F21)	(MLRA 127	, 147)		sturbed or problematic.
.twinting I o	war (if abaamsad).							
	yer (if observed):							
Type:	>						Hydric Soil Present?	Yes ● No ○
	es):						, , , , , , , , , , , , , , , , , , , ,	100 - 110 -
marks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-031
Investigator(s): J. Stelly and C. Hoff	mann	Section, Township, Range: S	S T R
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	l at	37.68269 Lo	ong.: -85.97107
Soil Map Unit Name: Lawrence silt			NWI classification: PFO1A
		0 0	
Are climatic/hydrologic conditions o		•	o, explain in Remarks.)
Are Vegetation  , Soil	, or Hydrology    significan	tly disturbed? Are "Norma	al Circumstances" present?
Are Vegetation, Soil	, or Hydrology $\ igsqcup$ naturally	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At	<u> </u>	sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No O		
Hydric Soil Present?	Yes O No O	Is the Sampled Area	Yes ● No ○
Wetland Hydrology Present?	Yes ○ No •	within a Wetland?	
Remarks:		<b>'</b>	
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o	ne required: check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plan	ts (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide	Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosph	neres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Redu	ced Iron (C4)	☐ Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Redu	ction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface	e (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 Image	ry (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			
		Wetland Hyd	drology Present? Yes O No 💿
(includes capillary fringe) Yes	No Depth (inches):		
Describe Recorded Data (stream ga	auge, monitoring well, aerial phot	os, previous inspections), if ava	illable:
Remarks:			

		-Species?		Sampling Point: <u>D-031</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	50	58.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:  (A)
2. Celtis occidentalis	30	35.3%	FACU	
3. Ulmus americana		5.9%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0.0%		Species / Kiross / Kirost / Ki
5		0.0%		Percent of dominant Species
6.		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:
	OE .	= Total Cove	er	OBL species x 1 =
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species5 x 2 =10
1	0_	0.0%		FAC species0 x 3 =0
2		0.0%		FACU speciles80 x 4 =320
3	_	0.0%		UPL species $0 \times 5 = 0$
4		0.0%		'
5	_	0.0%		(1)
6		0.0%		Prevalence Index = B/A = 3.882
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
0	_	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= Total Cove	er	Morphological Adaptations <sup>1</sup> (Provide supporting
1				data in Remarks or on a separate sheet)
2		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0			1 Indicators of hydric soil and wetland hydrology must
4	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), regardless
Herb Stratum (Plot size:)	0	= Total Cove	er	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%		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 Strate
7	0	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%		diameter at breast height (DBH).
0.	0	0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
1.	0	0.0%		than 3 in. (7.6 cm) DBH.
2.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
	0 :	= Total Cove	er	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, including herbaceous vines, regardless of size, and woody
1	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 height.
4	0	0.0%		
5		0.0%		Hydrophytic
6		0.0%		Vegetation Present?  Yes ○ No ●
	0	= Total Cov	er	11050IR.
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil

Sampling Point: D-031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Redox Features

(inches)	Color (	moist)	%	Redox Features Color (moist) % Type 1 Loc²		
0-21	10YR	3/1	100		Loam	
			-			
e: C=Conce	entration. D	=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Lo	ocation: PL=Pore Lining. M=Matrix	
ric Soil Inc	dicators:				Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol (A1	1)			Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)	
Histic Epipe	edon (A2)			Polyvalue Below Surface (S8) (MLRA 147,148		
Black Histic	(A3)			Thin Dark Surface (S9) (MLRA 147, 148)	Coast Prairie Redox (A16) (MLRA 147,148)	
Hydrogen S	Sulfide (A4)	)		Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)	
Stratified La	ayers (A5)			Depleted Matrix (F3)	(MLRA 136, 147)	
2 cm Muck (	(A10) (LRF	R N)		Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (TF12)	
Depleted Be	elow Dark	Surface (A	11)	Depleted Dark Surface (F7)	Other (Explain in Remarks)	
Thick Dark S	Surface (A	12)		Redox Depressions (F8)		
Sandy Muck MLRA 147,	k Mineral (\$ 148)	S1) (LRR N	l,	Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
Sandy Gleye	ed Matrix (	(S4)		Umbric Surface (F13) (MLRA 136, 122)	2	
Sandy Redo	ox (S5)			Piedmont Floodplain Soils (F19) (MLRA 148)	Indicators of hydrophytic vegetation and wetland hydrology must be present,	t
Stripped Ma	atrix (S6)			Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.	
	yer (if obs	served):				
Гуре:					Hydric Soil Present? Voc \ \ No \ \	
Гуре:	es):				Hydric Soil Present? Yes No	
Type: Depth (inche	es):				Hydric Soil Present? Yes Vo No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
ype: Depth (inche	es):				Hydric Soil Present? Yes O No •	
ype: Depth (inche	es):				Hydric Soil Present? Yes O No •	
ype: epth (inche	es):				Hydric Soil Present? Yes O No •	
ype: epth (inche	es):				Hydric Soil Present? Yes O No •	
ype: epth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
ype: Depth (inche	es):				Hydric Soil Present? Yes O No •	
ype: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Type: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Type: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Type: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Type: Depth (inche	es):				Hydric Soil Present? Yes O No •	
Гуре: Depth (inche	es):				Hydric Soil Present? Yes O No •	

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: KY	Sampling Point: D-032
Investigator(s): J. Stelly and C. Hoffma	inn	Section, Township, Range: S	T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N		37.68683 <b>Lo</b>	ng.: -85.96813 Datum: WGS 1984
Soil Map Unit Name: Gatton silt loam		37.00003	NWI classification: N/A
•		ar? Yes   No   (If no	
Are climatic/hydrologic conditions on t		•	o, explain in Remarks.)
Are Vegetation  , Soil ,	or Hydrology  significantly	y disturbed? Are "Norma	I Circumstances" present? Yes Sono
Are Vegetation U , Soil U ,	or Hydrology	roblematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Atta	ich site map showing sa	ampling point location	ns, 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?	res O NO O
Remarks:			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O	, ,	Drainage Patterns (B10)
Saturation (A3)		res along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Sediment Deposits (B2)	Presence of Reduce	, ,	Dry Season Water Table (C2)
Drift deposits (B3)	Thin Muck Surface	ion in Tilled Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	• •	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	U Other (Explain in Re	emarks)	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):		
Saturation Present? Yes	No Depth (inches):	Wetland Hyd	irology Present? Yes O No 🗨
(includes capillary fringe)  Describe Recorded Data (stream gauge	• • • • • •	s, previous inspections), if ava	ilable:
Remarks:			

		Dominant		Sampling Point: D-032
Tree Stratum (Plot size:)	Absolute % Cover	itonotiut.	Indicator Status	Dominance Test worksheet:
1_Acer nigrum	50	✓ 58.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:
2. Celtis occidentalis	30	<b>✓</b> 35.3%	FACU	
3. Ulmus americana	5	5.9%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4	0_	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	_	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
_Sapling-Sapling/Shrub Stratum (Plot size:)	85	= Total Cover		0BL species <u>0</u> x 1 = <u>0</u>
		0.0%		FACW species <u>5</u> x 2 = <u>10</u>
1		0.0%		FAC species x 3 =0
2		0.0%		FACU speciles 80 x 4 = 320
3		0.0%		UPL species $0 \times 5 = 0$
4 5		0.0%		Column Totals: 85 (A) 330 (B)
6		0.0%		Dravalance Index D/A 2 202
7		0.0%		Prevalence Index = B/A = 3.882
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 ≤3.0 ¹
Shrub Stratum (Plot size:)		0.0%		Morphological Adaptations 1 (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 5		0.0%		Definition of Vegetation Strata:
		0.0%		Four Vegetation Strata:
6	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 4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
	0	0.0%		
6 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%		diameter at breast height (DBH).
10		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
	0	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
	0	0.0%		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	0.0%		, -
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4		0.0%		
5		0.0%		Hydrophytic
6	0	= Total Cover		Vegetation Present?  Yes ○ No ●
		- rotal covel		
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil

Sampling Point: D-032

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	(De	Matrix	e aepth		tne indicator or co	n the a	absence of indicators.)	
(inches)	Color	(moist)	_%			_Loc2	Texture	Remarks
0-21	10YR	3/1	100				Loam	
	-							
	-			-			-	
	-							
	-						-	
	-	-						
1								
			n. RM=Redu	uced Matrix, CS=Covere	d or Coated Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	trix
Hydric Soil I				□ <b>.</b>			Indicators for Problem	matic Hydric Soils 3:
Histosol (	•			Dark Surface (S			2 cm Muck (A10) (	(MLRA 147)
	pedon (A2)				/ Surface (S8) (MLRA		Coast Prairie Redox	x (A16)
Black Hist					ce (S9) (MLRA 147, 1	48)	(MLRA 147,148)	. ()
	Sulfide (A4	)		Loamy Gleyed I			Piedmont Floodpla	in Soils (F19)
	Layers (A5)			Depleted Matrix			(MLRA 136, 147)	
	k (A10) (LR			Redox Dark Sur	, ,		Very Shallow Dark	Surface (TF12)
	Below Dark	•	11)	Depleted Dark S			Other (Explain in R	Remarks)
	k Surface (A	•		Redox Depressi				
Sandy Mu MLRA 147	ck Mineral ( ', 148)	S1) (LRR N	,	MLRA 136)	e Masses (F12) (LRR I			
Sandy Gle	yed Matrix	(S4)		Umbric Surface	(F13) (MLRA 136, 12	2)	3	
Sandy Red	dox (S5)			Piedmont Flood	plain Soils (F19) (MLF	RA 148)	Indicators of h	ydrophytic vegetation and ology must be present,
Stripped N	Matrix (S6)			Red Parent Mat	erial (F21) (MLRA 12	7, 147)	unless dist	turbed or problematic.
Restrictive La	ayer (if ob	served):						
Type:							Hydric Soil Present?	Yes ○ No •
	nes):						,	
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Sampling Point: D-033
Investigator(s): J. Stelly and C. Hoffm	nann	Section, Township, Range: S	TR
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex, i	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N		37.68884 <b>Lo</b> i	ng.: -85.9389
Soil Map Unit Name: Gatton silt loan		37.00004	NWI classification: PUBFh
Are climatic/hydrologic conditions on		ear? Yes   No (If no	
		•	o, explain in Remarks.)
			on cumstances present.
Are Vegetation, Soil	, or Hydrology 🔲 naturally բ	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Att	ach site map showing s	sampling point location	ns, 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?	res © No C
Remarks:			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plant	ts (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide	Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosph	eres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduc	ced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduc	ction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Surface	e (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in F	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):		
Saturation Present?  (includes capillary frings)  Yes			lrology Present? Yes O No 💿
(includes capillary fringe)  Describe Recorded Data (stream gau	• • • • • • • • • • • • • • • • • • • •	os previous inspections) if avai	ilable
Describe Recorded Data (stream gat	uge, monitoring well, aenai photo	os, previous irispections), ir avai	iable.
Remarks:			

		Dominant		Sampling Point: D-033
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:0 (A)
2		0.0%		
3		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4		0.0%		
5		0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0			Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0	= Total Cover		0BL speci es
1.		0.0%		FACW species
2		0.0%		FAC species x 3 =0
3		0.0%		FACU speci es x 4 =0
4	_	0.0%		UPL species $\underline{50}$ x 5 = $\underline{250}$
5		0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
6		0.0%		Prevalence Index = B/A = 5.000
7		0.0%		
8	_	0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
10		0.0%		Prevalence Index is ≤3.0 ¹
		= Total 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%		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.
1. Zea mays	50	<b>1</b> 00.0%	UPI	Sapling/shrub stratum – Consists of woody plants, excluding
2.		0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  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 Strate
7	0	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 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.
	50	= 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	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		
6		0.0%		Hydrophytic Vegetation
<u></u>		= Total Cover	-	Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee				
Remarks. (Thichade photo humbers here of on a separate shee	:1.)			

Soil

Sampling Point: D-033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(moist) % 3/3 100	Color (moist)	% Type 1	Loc²	Loam	Remarks
3/3 100				Loam	
)=Depletion RM=Rec	duced Matrix CS=Covered (	or Coated Sand Grain	ıs 2l oca	ution: PL=Pore Lining M=Ma	atrix
	Jacca Matrix, 05-00vereu e	n coatea sana Grain			
	Dark Surface (\$7)			Indicators for Proble	matic Hydric Soils 3:
			<i>1</i> 7 1 <i>1</i> 8)	2 cm Muck (A10)	(MLRA 147)
	_ '				x (A16)
)			٥)	_	
,					ain Soils (F19)
5 N)					. C
		` ,			
				☐ Other (Explain in I	Remarks)
•					
31) (LKK IV,	MLRA 136)				
(S4)	Umbric Surface (F	13) (MLRA 136, 122)	)	2	
	Piedmont Floodpla	ain Soils (F19) (MLRA	(148)	3 Indicators of h	nydrophytic vegetation and rology must be present,
	Red Parent Materi	ial (F21) (MLRA 127,	147)		sturbed or problematic.
served):					
				Hydric Soil Present?	Yes ○ No ●
				,	
: (); ();	R N) Surface (A11) A12) (S1) (LRR N, (S4)	Dark Surface (S7) Polyvalue Below S Thin Dark Surface Loamy Gleyed Mat Depleted Matrix (F R N) Redox Dark Surface Surface (A11) Redox Depression Redox Depression (S1) (LRR N, MLRA 136) Umbric Surface (F Piedmont Floodpla	Dark Surface (S7)  Polyvalue Below Surface (S8) (MLRA 147, 148  Thin Dark Surface (S9) (MLRA 147, 148  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Surface (A11)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 127, served):	Dark Surface (S7)  Polyvalue Below Surface (S8) (MLRA 147,148)  Thin Dark Surface (S9) (MLRA 147, 148)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  R N)  Redox Dark Surface (F6)  Surface (A11)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)	Dark Surface (S7)  Polyvalue Below Surface (S8) (MLRA 147,148)  Thin Dark Surface (S9) (MLRA 147, 148)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  R N)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  (S1) (LRR N, MLRA 136)  (S4)  Dark Surface (S9) (MLRA 147, 148)  Coast Prairie Redo (MLRA 147,148)  Piedmont Floodpla (MLRA 136, 147)  Very Shallow Dark Other (Explain in Factors of F

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21			
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-034			
Investigator(s): J. Stelly and C. Hoffi	mann	Section, Township, Range: S	S T R			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °			
Subregion (LRR or MLRA): LRR N		— at.: 37.69069 Lo	ong.: -85.93723 Datum: WGS 1984			
Soil Map Unit Name: Nb - Newark		37.07007	NWI classification: PUBHh			
		fyear? Yes  No (If no				
Are climatic/hydrologic conditions of		•	o, explain in Remarks.)			
Are Vegetation, Soil	, or Hydrology  signific	antly disturbed? Are "Norma	al Circumstances" present?			
Are Vegetation, Soil	, or Hydrology L natural	ly problematic? (If needed,	explain any answers in Remarks.)			
Summary of Findings - At	<u> </u>	g sampling point locatio	ns, transects, important features, etc.			
Hydrophytic Vegetation Present?	Yes O No 💿					
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ● No ○			
Wetland Hydrology Present?	Yes O No 🗨	within a Wetland?	103 0 110 0			
Remarks:		<b>-</b>				
Hydrology						
Wetland Hydrology Indicators:			Consider the distance (minimum of the consider the			
Primary Indicators (minimum of or	ne required: check all that anni	v)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic P		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfi	• ,	Drainage Patterns (B10)			
Saturation (A3)	, ,	spheres along Living Roots (C3)	Moss Trim Lines (B16)			
☐ Water Marks (B1)		educed Iron (C4)	Dry Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Re	eduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
Drift deposits (B3)	Thin Muck Sur	face (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 Imager	ry (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 (inche	د).				
_						
Water Table Present? Yes	1	s): Wetland Hyd	drology Present? Yes O No 💿			
Saturation Present? (includes capillary fringe) Yes	No O Depth (inche					
Describe Recorded Data (stream ga	auge, monitoring well, aerial ph	notos, previous inspections), if ava	allable:			
Remarks:						
iverial ks.						

		-Species?		Sampling Point: <u>D-034</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	50	<b>✓</b> 58.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:  (A)
2. Celtis occidentalis		35.3%	FACU	
3. Ulmus americana		5.9%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0.0%		2 (b)
5		0.0%		Percent of dominant Species
6		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:
	OE .	= Total Cove	r	OBL species x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 5 x 2 = 10
1		0.0%		FAC species0 x 3 =0
2		0.0%		FACU speciles80 x 4 =320
3	_	0.0%		UPL species $0 \times 5 = 0$
4		0.0%		'
5	_	0.0%		(1)
6		0.0%		Prevalence Index = B/A = 3.882
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
0	_	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= Total Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting
1				data in Remarks or on a separate sheet)
2				☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0			1 Indicators of hydric soil and wetland hydrology must
4	0			be present, unless disturbed or problematic.
5	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
Herb Stratum (Plot size:)	0	= Total Cove	r	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%		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 Strate
7	0	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%		diameter at breast height (DBH).
0.	0	0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
1.	0	0.0%		than 3 in. (7.6 cm) DBH.
2.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
	0 :	= Total Cove	r	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, including herbaceous vines, regardless of size, and woody
1	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 height.
4	0	0.0%		
5		0.0%		Hydrophytic
6		0.0%		Vegetation Present?  Yes ○ No ●
	0	= Total Cove	er	11050IR.
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil Sampling Point: D-034 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/1 <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:** 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21				
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-035				
Investigator(s): J. Stelly and C. Hoffmann		Section, Township, Range: S	S T R				
Landform (hillslope, terrace, etc.):	I	ocal relief (concave, convex,	none): Slope: 0.0 % / 0.0				
Subregion (LRR or MLRA): LRR N		37.6907 <b>Lo</b>	ng.: -85.93732				
Soil Map Unit Name: Nb - Newark silt lo		37.0707	NWI classification: PUBHh				
Are climatic/hydrologic conditions on the	site typical for this time of year	nr? Yes • No O (If no	o, explain in Remarks.)				
	Hydrology significantly	•	al Circumstances" present? Yes   No				
Are Vegetation, Soil, or	Hydrology	oblematic? (If needed,	explain any answers in Remarks.)				
Summary of Findings - Attack	າ site map showing sa	ampling point location	ns, transects, important features, etc.				
Hydrophytic Vegetation Present? Ye	s • No O						
Hydric Soil Present? Ye	s   No	Is the Sampled Area	Yes ● No ○				
Wetland Hydrology Present? Ye	s • No O	within a Wetland?	163 ( 140 (				
Remarks: Wet-15							
Hydrology							
Wetland Hydrology Indicators:	-		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one red			Surface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants		✓ Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Od		☐ Drainage Patterns (B10)				
Saturation (A3)	_	res along Living Roots (C3)					
Water Marks (B1)	Presence of Reduce	_ * * * * * * * * * * * * * * * * * * *					
Sediment Deposits (B2)		on 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 Re	emarks)	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  N	Depth (inches):						
Water Table Present? Yes O	<b>lo</b> Oepth (inches): _		drology Present? Yes   No				
Saturation Present? (includes capillary fringe) Yes N	Depth (inches):	Wetland Hyd	drology Present? Yes ● No ○				
Describe Recorded Data (stream gauge,	monitoring well, aerial photos	, previous inspections), if ava	ilable:				
Remarks:							

	Sampling Point: D-035						
	Absolute % Cover		trat.	Indicator Status	Dominance Test worksheet:		
1. Acer rubrum	_50_	<b>✓</b> _ 55	5.6%	FAC	Number of Dominant Species That are OBL, FACW, or FAC:3 (A)		
2. Celtis laevigata	20	<b>✓</b> 22	2.2%	FACW	T		
3. Ulmus americana	20	<b>✓</b> 22	2.2%	FACW	Total Number of Dominant Species Across All Strata: 3 (B)		
4	0	0	.0%				
5	0	0	.0%		Percent of dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)		
6	0	0	.0%		That Are OBL, FACW, OF FAC.		
7	0	<u> </u>	.0%		Prevalence Index worksheet:		
8	0	0	.0%		Total % Cover of: Multiply by:		
Sapling-Sapling/Shrub Stratum (Plot size:)	90	= Total	Cover		0BL speci es x 1 =0		
	_		.0%		FACW species		
1			0.0%		FAC speci es		
3			.0%		FACU speci es x 4 =0		
4			.0%		UPL species x 5 =0		
5			.0%		Column Totals:90 (A)230 (B)		
6			.0%		Prevalence Index = B/A = 2.556		
7	-		.0%				
8			.0%		Hydrophytic Vegetation Indicators:		
9.			.0%		Rapid Test for Hydrophytic Vegetation		
10.			0.0%		Dominance Test is > 50%		
		= Total	Cover		✓ Prevalence Index is ≤3.0 ¹		
Shrub Stratum (Plot size:)	0		.0%		Morphological Adaptations 1 (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 4			0.0%		be present, unless disturbed or problematic.		
5			0.0%		Definition of Vegetation Strata:		
6.			0.0%		Four Vegetation Strata:		
	0		.0%		Tree stratum - Consists of woody plants, excluding vines, 3 in		
7.		= Total			(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		1.0%		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 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%		Sapling stratum – Consists of woody plants, excluding woody		
10 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%		Shrub stratum – Consists of woody plants, excluding woody		
		= Total			vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)	0		.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody		
1					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 height.		
4			0.0%				
5			0.0%		Hydrophytic		
6			.0%		Vegetation Present?  Yes  No		
	0	= Total	Cove				
Remarks: (Include photo numbers here or on a separate shee	et.)						

Soil Sampling Point: D-035

Profile Descri		the depth r				nfirm the a	absence of indicators.)			
Depth	Matrix	0/	Redox Features  Color (moist) % Type 1 Loc²				Tautum			
(inches) 0-21	Color (moist) 10YR 3/1	<b>%</b> 85	Color (moist) 5YR 4/6	<b>%</b> 15	Tvpe 1	M	<u>Texture</u> Loam	Remarks		
	- TOTK 3/1		- 31K 4/0			IVI	Loaiii			
			-				-			
<sup>1</sup> Type: C=Cond	centration. D=Depletic	n. RM=Redu	ced Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix		
Hydric Soil II	ndicators:						Indicators for Proble	ematic Hydric Soils 3:		
Histosol (A	A1)		Dark Surface (	S7)			2 cm Muck (A10)	•		
Histic Epip	edon (A2)		Polyvalue Belov	w Surface (	(S8) (MLRA	147,148)				
☐ Black Histi	c (A3)		Thin Dark Surfa	ace (S9) (N	1LRA 147, 1	48)	Coast Prairie Redo (MLRA 147,148)	х (A16)		
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)	ı		Piedmont Floodpla	oin Soile (E10)		
Stratified L	_ayers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147)	3111 30113 (F 19)		
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)		
Depleted E	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in Remarks)			
☐ Thick Dark	Surface (A12)		✓ Redox Depress	ions (F8)				tomano,		
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N	٧,	Iron-Manganes MLRA 136)	se Masses (	(F12) (LRR I	١,				
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)				
Sandy Red			Piedmont Floor	dplain Soils	(F19) (MLF	2A 148)	<sup>3</sup> Indicators of h	hydrophytic vegetation and		
Stripped M			Red Parent Ma					rology must be present, sturbed or problematic.		
	ayer (if observed):									
Type:							Hydric Soil Present?	Yes ● No ○		
Depth (inch	nes):						.,			
Remarks:										

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-036
Investigator(s): J. Stelly and C. Hoffmann		Section, Township, Range: S	TR
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	l at ·	37.69073 <b>Lo</b>	ng.: -85.93612
Soil Map Unit Name: Gatton silt loam (2		37.07073	NWI classification: N/A
Are climatic/hydrologic conditions on the		ar? Yes  ● No ○ (If no	o, explain in Remarks.)
		•	Il Circumstances" present? Yes • No
			in our our istances present.
-			explain any answers in Remarks.) ns, transects, important features, etc.
	s O No •		· · · · · · · · · · · · · · · · · · ·
	s ○ No •	Is the Sampled Area	
,	s O No 💿	within a Wetland?	Yes ○ No •
Remarks:			
Hydrology			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one recompliance Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes  N	True Aquatic Plants  Hydrogen Sulfide O  Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Thin Muck Surface Other (Explain in Reduct)  Depth (inches): Depth (inches): Depth (inches):	dor (C1) res along Living Roots (C3) ed Iron (C4) ion in Tilled Soils (C6) (C7) emarks)  Wetland Hyd	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  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-036		
	Absolute % Cover		Indicator Status	Dominance Test worksheet:  Number of Dominant Species		
1. Acer nigrum	20	100.0%	FACU	That are OBL, FACW, or FAC:		
2	0_	0.0%		T. I.N. J. CD. C. I.		
3	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)		
4		0.0%				
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)		
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)		
7	0	0.0%		Prevalence Index worksheet:		
8	0	0.0%		Total % Cover of: Multiply by:		
_Sapling-Sapling/Shrub Stratum (Plot size:)		= Total Cover		0BL speci es x 1 =0		
1.		0.0%		FACW species		
2		0.0%		FAC species x 3 =0		
3		0.0%		FACU speciles		
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%		☐ Dominance Test is > 50% ☐ Prevalence Index is ≤3.0 ¹		
		= Total Cover				
<u>Shrub Stratum</u> (Plot size:)  1	0	0.0%		Morphological Adaptations 1 (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:)  1. Echinochioa crusqalli	50	<b>1</b> 00.0%	EACH	Sapling/shrub stratum – Consists of woody plants, excluding		
•	0	0.0%	FACU	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.		
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%		diameter at breast height (DBH).		
10		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		
	50	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.  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	0.0%		height.		
5		0.0%				
6		0.0%		Hydrophytic Vegetation		
U	0	= Total Cover		Present? Yes No •		
Demandra (Include phat						
Remarks: (Include photo numbers here or on a separate shee	et.)					

Soil

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Penth Matrix Redox Features

Depth (inches)	Color	Matrix (moist)	%	Redox Featu Color (moist) %	res1	Loc <sup>2</sup>	Texture	Remarks			
0-21	10YR	3/3	100	Color (moist) %	TVDE	LOC-	Loam	Remarks			
							LOGITI				
							-				
<sup>1</sup> Type: C=Con	centration.	D=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coate	d Sand Grai	ns <sup>2</sup> Locat	tion: PL=Pore Lining. M=Ma	atrix			
Hydric Soil I							Indicators for Proble				
Histosol (				Dark Surface (S7)							
	pedon (A2)			Polyvalue Below Surface (	S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)			
Black Hist				Thin Dark Surface (S9) (M			Coast Prairie Redo	x (A16)			
	Sulfide (A4	1)		Loamy Gleyed Matrix (F2)		,	(MLRA 147,148)				
	Layers (A5)			Depleted Matrix (F3)			Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)			
	k (A10) (LR			Redox Dark Surface (F6)				C ( (TE40)			
	Below Dark		11\	Depleted Dark Surface (F7	7)		☐ Very Shallow Dark				
	k Surface (/	•	.11)	Redox Depressions (F8)	)		Other (Explain in	Remarks)			
	•	•		Iron-Manganese Masses (	F12) (LRR N	ı					
MLRA 147	ick Mineral 7, 148)	(S1) (LKK I	١,	MLRA 136)	1 12) (21111	• ,					
	eyed Matrix	(S4)		Umbric Surface (F13) (ML	RA 136, 12	2)					
Sandy Re		(0.)		Piedmont Floodplain Soils	(F19) (MLR	A 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and			
	Matrix (S6)			Red Parent Material (F21)			wetland hydrology must be present, unless disturbed or problematic.				
				Red Farent Material (121)	(WEIGH 12)	, , ,	urness dis	Tailbed of problematic.			
Restrictive L	ayer (if ob	served):									
Type:											
Depth (inc	hes):						Hydric Soil Present?	Yes O No 💿			
Remarks:											

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampling Date	e: 24-Feb-21
Applicant/Owner: 7x Energy				State: KY	Sampli	ng Point:	D-037
Investigator(s): J. Stelly and C. Hof	fmann		Section, Town	nship, Range: S	т		R
Landform (hillslope, terrace, etc.):			Local relief (co	ncave, convex, r	none):	Slope:	_0.0_ %/ <sub>0.0</sub> °
Subregion (LRR or MLRA): LRR	1	Lat.:	37.69239	Lor	ng.: -85.93253		Datum: WGS 1984
Soil Map Unit Name: Sonora silt lo					NWI classific		
Are climatic/hydrologic conditions o	on the site typic	cal for this time of yea	ar? Yes 💿	No 🔾 (If no	, explain in Remark		_
Are Vegetation . , Soil .	, or Hydrolog	gy 🗌 significantly	y disturbed?	Are "Norma	Circumstances" pr	esent? Ye	s • No O
Are Vegetation . , Soil .	, or Hydrolog	gy 🗌 naturally pr	roblematic?	(If needed,	explain any answer	s in Remarks.	)
Summary of Findings - A			ampling po	int location	ns, transects,	important	features, etc.
Hydrophytic Vegetation Present?		No •					
Hydric Soil Present?	Yes O	No 💿		Sampled Area	Yes ○ No ●		
Wetland Hydrology Present?	Yes O	No •	within	a Wetland?	Tes C NO C		
Remarks:			1				
Hydrology							
Wetland Hydrology Indicators:					Secondary Indicator	s (minimum of t	two required)
Primary Indicators (minimum of o	ne required; c				Surface Soil Cra		
Surface Water (A1)		True Aquatic Plants			Sparsely Vegeta		rface (B8)
High Water Table (A2)		Hydrogen Sulfide O			Drainage Patteri		
☐ Saturation (A3) ☐ Oxidized Rhizospheres along Living Roots (C3)					<ul><li></li></ul>		
Water Marks (B1) Sediment Deposits (B2)		Presence of Reduce		(0/)			
Drift deposits (B3)		Recent Iron Reducti		(C6)	Crayfish Burrow		gory (CO)
Algal Mat or Crust (B4)		Thin Muck Surface (	•		Saturation Visibl Stunted or Stres		gery (C9)
Iron Deposits (B5)		Other (Explain in Re	emarks)		Geomorphic Pos		
Inundation Visible on Aerial Image	rv (B7)				Shallow Aquitaro		
Water-Stained Leaves (B9)	,						
Aquatic Fauna (B13)					<ul><li>✓ Microtopographi</li><li>✓ FAC-neutral Tes</li></ul>		
Field Observations:						. ,	
Surface Water Present? Yes	○ No •	Depth (inches):					
Water Table Present? Yes	O No 💿	Depth (inches):					
Saturation Present?  (includes capillary frings)  Yes	No ●	Depth (inches):		Wetland Hyd	rology Present?	Yes O N	o •
(includes capillary fringe)  Describe Recorded Data (stream g		ing well, aerial photos	s, previous insp	ections), if avai	lable:		
	J ·			,			
Remarks:							

		-Species?		Sampling Point: <u>D-037</u>
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	50	66.7%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:0(A)
2. Celtis occidentalis		26.7%	FACU	
3. Ulmus americana	5	6.7%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:0.0% (A/B)
6		0.0%		That Are Obl., FACW, OF FAC.
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	75 :	= Total Cove	r	0BL species
1	0	0.0%		FACW speciles <u>5</u> x 2 = <u>10</u>
2	0	0.0%		FAC species $0 \times 3 = 0$
3	0	0.0%		FACU species $\frac{70}{2}$ x 4 = $\frac{280}{2}$
4	0	0.0%		UPL speci es x 5 =
5	0	0.0%		Column Totals: <u>75</u> (A) <u>290</u> (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%
0		0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
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)  Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		
3		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%		
5		0.0%		Definition of Vegetation Strata: Four Vegetation Strata:
6		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7				(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size:)	:		ŗ	of height. 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%		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%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		0.0%		in height.
5		0.0%		
6		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%		diameter at breast height (DBH).
9	0	0.0%		Sapling stratum – Consists of woody plants, excluding woody
1	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
	0 :	= Total Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:) 1	0	0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
	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
4	0	0.0%		height.
5		0.0%		
6.	0	0.0%		Hydrophytic Vegetation
<u>.                                    </u>		= Total Cove	r	Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	at )			
remaires. (moidue prioto numbers nere or on a separate snee	,			

Soil

Sampling Point: D-037

Profile Description: (Describe to the donth peeded to decument the indicator or confirm the absence of indicators.)

Profile Descri		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix	04		ox Featu	res1	1 2	Taukuma	Damanta
(inches) 0-21	Color (moist) 10YR 3/1	<u>%</u> 100	Color (moist)	%	IVDe	Loc <sup>2</sup> _	Texture Loam	Remarks
	- 101K 3/1						LOdili	
				-				
				-				
<sup>1</sup> Type: C=Conc	centration. D=Depletion	n. RM=Redu	ced Matrix, CS=Covered	d or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Matri:	х
Hydric Soil II	ndicators:						Indicators for Problema	atic Hydric Soils 3:
Histosol (A	<b>\1)</b>		Dark Surface (S	7)			2 cm Muck (A10) (MI	-
Histic Epip	edon (A2)		Polyvalue Below	Surface (	S8) (MLRA	147,148)		
Black Histi	c (A3)		Thin Dark Surface	ce (S9) (M	LRA 147, 1	48)	Coast Prairie Redox ( (MLRA 147,148)	A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed M	Matrix (F2)			Piedmont Floodplain	Soils (F19)
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	3013 (17)
2 cm Muck	(A10) (LRR N)		Redox Dark Surf	face (F6)			Very Shallow Dark Su	urface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark S	urface (F7	")		Other (Explain in Rer	marks)
Thick Dark	Surface (A12)		Redox Depression	ons (F8)				·
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	١,	Iron-Manganese MLRA 136)	Masses (I	F12) (LRR I	٧,		
	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)		
Sandy Red			Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hyd	drophytic vegetation and ogy must be present,
Stripped M			Red Parent Mate	erial (F21)	(MLRA 127	7, 147)		rbed or problematic.
Dankainkina I a	······ (:£ - b b)							
Type:	yer (if observed):							
-	nes):						Hydric Soil Present?	Yes O No •
	les)							
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-038
Investigator(s): J. Stelly and C. Hoff	fmann	Section, Township, Range:	S TR
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	 √ Lat.:	37.68976 Lo	ong.: -85.93439
Soil Map Unit Name: Sonora silt lo		07.00770	NWI classification: N/A
Are climatic/hydrologic conditions o		ear? Yes  No (If no	o, explain in Remarks.)
		•	Van 📵 Na 🔘
Are Vegetation , Soil ,		-	a on our stances present.
Are Vegetation, Soil	, or Hydrology	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At	ttach site map showing	sampling point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No 💿		
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	ies C into C
Remarks:			
1.0.1.2.1.0.			
Hydrology			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of or	and required; check all that apply)		Secondary Indicators (minimum of two required)
Surface Water (A1)	True Aquatic Plan	te (R14)	Surface Soil Cracks (B6)
High Water Table (A2)	Hydrogen Sulfide	• •	Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)
Saturation (A3)	_ , ,	neres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Redu		Dry Season Water Table (C2)
Sediment Deposits (B2)		ction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Surface		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in	• •	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	U Other (Explain III	Refildiks)	Geomorphic Position (D2)
Inundation Visible on Aerial Image	ery (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):		
Saturation Present?  (includes capillary frings)  Yes	No Depth (inches):	Wetland Hyd	drology Present? Yes 🔾 No 💿
(includes capillally inflige)		as provious inspections) if our	silahla.
Describe Recorded Data (stream ga	auge, monitoring weil, aeriai phot	os, previous irispections), ir ava	illable:
Remarks:			
Remarks.			

		-Species?		Sampling Point: D-038
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
1. Acer nigrum	40	<b>✓</b> 53.3%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2. Celtis occidentalis		40.0%	FACU	
3. Ulmus americana		6.7%	FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0.0%		Species Across Air Strata.
5		0.0%		Percent of dominant Species
6		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:
	75	= Total Cove	r	0BL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:	) ——			FACW species5 x 2 =10
1	0			FAC species $0 \times 3 = 0$
2	0	0.0%		FACU speciles 70 x 4 = 280
3	0			
4	0			or E specifics — x 5 = —
5	0	0.0%		Column Totals: <u>75</u> (A) <u>290</u> (B)
6		0.0%		Prevalence Index = B/A = <u>3.867</u>
7				Hydrophytic Vegetation Indicators:
8	0			Rapid Test for Hydrophytic Vegetation
9	0			☐ Dominance Test is > 50%
0	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= Total Cove	r	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%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
Herb Stratum (Plot size:)		= Total Cove	r	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
<u> </u>	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.
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%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		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 diameter at breast height (DBH).
9	0	0.0%		Sapling stratum – Consists of woody plants, excluding woody
0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1		0.0%		Shrub stratum – Consists of woody plants, excluding woody
2		= 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, 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	er	Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Redox Features

Depth (inches)	Color	Matrix (moist)	%	Redox Featu Color (moist) %	res1	Loc <sup>2</sup>	Texture	Remarks	
0-21	10YR	3/1	100	Color (moist) %	Type	LOC-	Loam	Remarks	
U-Z I							LOdili		
							-		
							-		
	-								
<sup>1</sup> Type: C=Con	centration.	D=Depletio	n. RM=Redu	ced Matrix, CS=Covered or Coate	d Sand Grai	ins <sup>2</sup> Locat	tion: PL=Pore Lining. M=Ma	atrix	
Hydric Soil I	ndicators						Indicators for Proble	matic Hudria Cails 3.	
Histosol (				Dark Surface (S7)					
	pedon (A2)			Polyvalue Below Surface (	S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)	
Black Hist				Thin Dark Surface (S9) (M			Coast Prairie Redo	x (A16)	
	Sulfide (A4	1)		Loamy Gleyed Matrix (F2)		,	(MLRA 147,148)		
	Layers (A5)			Depleted Matrix (F3)			Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)	
	k (A10) (LR			Redox Dark Surface (F6)				Curfoss (TF12)	
	Below Dark		11\	Depleted Dark Surface (F7	7)		☐ Very Shallow Dark		
	k Surface (/	•	111)	Redox Depressions (F8)	,		Other (Explain in	Remarks)	
	ick Mineral	•	ı	Iron-Manganese Masses (	F12) (LRR N	J.			
MLRA 147	7, 148)	(31) (LKK I	ν,	MLRA 136)	, (	-,			
Sandy Gle	eyed Matrix	(S4)		Umbric Surface (F13) (ML	RA 136, 12	2)			
Sandy Re		(3.3)		Piedmont Floodplain Soils	(F19) (MLR	A 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and	
	Matrix (S6)			Red Parent Material (F21)			wetiand nyd unless dis	Irology must be present, sturbed or problematic.	
					•	. ,			
Restrictive L	ayer (if ob	served):							
Type:								Yes ○ No ●	
Depth (inc	hes):						Hydric Soil Present?	Yes O No 💿	
Remarks:									

Project/Site: Telesto Solar Project			City/County:	Cecilia/Hardin		Sampli	ng Date: 24-	-Feb-21
Applicant/Owner: 7x Energy				State: K	Υ	Sampling Point	nt:	D-039
Investigator(s): J. Stelly and C. Ho	ffmann		Section, Town	nship, Range: S	S	т	R	
Landform (hillslope, terrace, etc.):	Flat		Local relief (co	ncave, convex, i	none):	: flat	Slope: 0.0	0_ %/ 0.0 °
Subregion (LRR or MLRA): LRR	 N	Lat.:	37.68852	Loi	ng.:	-85.93588	Datu	m: WGS 1984
Soil Map Unit Name: Sonora silt le						NWI classification:		
Are climatic/hydrologic conditions	on the site typ	pical for this time of yea	ar? Yes 💿	No 🔾 (If no	o, expl	ain in Remarks.)		
Are Vegetation . , Soil .	, or Hydrold	ogy 🗌 significantly	y disturbed?	Are "Norma	al Circu	umstances" present?	Yes •	No $\bigcirc$
Are Vegetation . , Soil .	, or Hydrolo	ogy 🗌 naturally pr	roblematic?	(If needed,	, expla	in any answers in Re	emarks.)	
Summary of Findings - A		<u> </u>	ampling po	int location	ns, tı	ransects, impo	rtant fea	itures, etc.
<b>Hydrophytic Vegetation Present?</b>		No •						
Hydric Soil Present?		No 💿		Sampled Area	νως	○ No ●		
Wetland Hydrology Present?	Yes 🔾	No 💿	within	a Wetland?	103	O 110 O		
Remarks:								
Hydrology								
Wetland Hydrology Indicators:					Seco	ondary Indicators (minir	mum of two re	quired)
Primary Indicators (minimum of	one required;					Surface Soil Cracks (B6)		
Surface Water (A1)		True Aquatic Plants				Sparsely Vegetated Con		(B8)
High Water Table (A2)		Hydrogen Sulfide O				Drainage Patterns (B10)	)	
Saturation (A3)		Oxidized Rhizosphe		Roots (C3)		Moss Trim Lines (B16)		
Water Marks (B1)		Presence of Reduce		(0.1)		Dry Season Water Table	e (C2)	
Sediment Deposits (B2)  Drift deposits (B3)		Recent Iron Reduct		(06)		Crayfish Burrows (C8)		(00)
Algal Mat or Crust (B4)		Thin Muck Surface				Saturation Visible on Ae		(9)
Iron Deposits (B5)		Other (Explain in Re	emarks)			Stunted or Stressed Plan		
Inundation Visible on Aerial Imag	erv (R7)					Geomorphic Position (D Shallow Aquitard (D3)	12)	
Water-Stained Leaves (B9)	51 <b>y</b> (57)					Microtopographic Relief	· (D4)	
Aquatic Fauna (B13)						FAC-neutral Test (D5)	(54)	
Field Observations:						The ficultur rest (Bo)		
Surface Water Present? Yes	○ No ●	Depth (inches):						
Water Table Present? Yes	○ No ●	Depth (inches):						
Saturation Present? (includes capillary frings)  Yes	○ No ●	Depth (inches):		Wetland Hyd	drology	y Present? Yes	○ No ●	
(includes capillary fringe)  Describe Recorded Data (stream		pring well, aerial photos	s, previous insp	ections), if avai	ailable:	:		
				•				
Remarks:								

		-Species? -		Sampling Point: <u>D-039</u>
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover		Status	Bonniance rest worksheet.
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:(A)
2	0	0.0%		
3		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Descent of descinant Consise
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		
2	_	0.0%		FAC species x 3 =
		0.0%		FACU speci es 50 x 4 = 200
3				UPL species $0 \times 5 = 0$
4	0	0.0%		· ·
5	0	0.0%		Column Totals: <u>50</u> (A) <u>200</u> (B)
		0.0%		D
6				Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Strate.
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
				(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	<b>1</b> 00.0%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
•				1 '
2				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%		regardless of size, and all other plants less than 5.26 it 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%		If (6 m) or more in height and 3 in. (7.6 cm) or larger in
		0.00/		diameter at breast height (DBH).
9				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
12				vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	50	= 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 (1
2				m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
		0.00/		
5				Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover		Present? Yes No •
				I
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil

Sampling Point: D-039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	. ,-	Matrix			ox Features		absence of indicators.)	
(inches)	Color	(moist)	%	Color (moist)	%Tvpe_1	_Loc2	Texture	Remarks
0-21	10YR	3/3	100				Loam	
-	-	_					•	
	-						-	
1 - 0 0		D D L !!						
			on. RM=Red	uced Matrix, CS=Covered	d or Coated Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil I		:					Indicators for Proble	matic Hydric Soils <sup>3</sup> :
Histosol (	•			Dark Surface (S	•		2 cm Muck (A10)	(MLRA 147)
	pedon (A2)				Surface (S8) (MLRA		Coast Prairie Redo	•
Black Hist					ce (S9) (MLRA 147, 1	48)	(MLRA 147,148)	A (A10)
	Sulfide (A4			Loamy Gleyed N			Piedmont Floodpla	ain Soils (F19)
	Layers (A5)			Depleted Matrix			(MLRA 136, 147)	, ,
2 cm Muc	k (A10) (LR	R N)		Redox Dark Sur	` ,		Very Shallow Dark	Surface (TF12)
Depleted	Below Dark	Surface (A	11)	Depleted Dark S			Other (Explain in I	Remarks)
Thick Dar	k Surface (A	<b>A</b> 12)		Redox Depression				
Sandy Mu MLRA 147	ck Mineral 7, 148)	(S1) (LRR I	٧,	Iron-Manganese MLRA 136)	e Masses (F12) (LRR I	١,		
Sandy Gle	yed Matrix	(S4)		Umbric Surface	(F13) (MLRA 136, 12	2)		
Sandy Re				Piedmont Flood	plain Soils (F19) (MLF	2A 148)	3 Indicators of h	nydrophytic vegetation and rology must be present,
	Matrix (S6)			Red Parent Mate	erial (F21) (MLRA 127	', 147)		sturbed or problematic.
	46.1							
Restrictive La	ayer (if ob	served):						
Type:							Hydric Soil Present?	Yes ○ No •
	nes):						,	103 0 110 0
Remarks:								

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21	
Applicant/Owner: 7x Energy		State: k	Y Sampling Point: D-040	
Investigator(s): J. Stelly and C. Hoffmann		Section, Township, Range:	S T R	
Landform (hillslope, terrace, etc.): Flat		Local relief (concave, convex,	none): flat Slope: 0.0 % /	0.0 °
Subregion (LRR or MLRA): LRR N	Lat.:	37.68847 Lo	ong.: -85.94154	
Soil Map Unit Name: Sonora silt loam (6 t			NWI classification: N/A	
Are climatic/hydrologic conditions on the si	te typical for this time of ve	ar? Yes   No   (If n	o, explain in Remarks.)	
		•	al Circumstances" present? Yes   No	
			, explain any answers in Remarks.)	
-		•	ns, transects, important features,	etc.
Hydrophytic Vegetation Present? Yes	O No ●			
Hydric Soil Present? Yes	O No •	Is the Sampled Area	Yes ○ No ●	
Wetland Hydrology Present? Yes	○ No ●	within a Wetland?	res Unu U	
Remarks:				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one requ	ired; 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 O	dor (C1)	Drainage Patterns (B10)	
Saturation (A3)	Oxidized Rhizosphe	res along Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)	Presence of Reduce	ed Iron (C4)	Dry Season Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduct	ion 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 Re	emarks)	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):			
	' ' '			
	Depth (inches):	Wetland Hy	drology Present? Yes O No •	
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):		arology Present: 103 0 No 0	
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photo	s, previous inspections), if av	ailable:	
Remarks:				

		-Species? -		Sampling Point: <u>D-040</u>
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover		Status	Bonniance rest worksheet.
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:(A)
2	0	0.0%		
3		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Demonstrate designant Consider
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	_	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		
2	_	0.0%		FAC speci es x 3 =0
		0.0%		FACU species $0 \times 4 = 0$
3				l
4	0	0.0%		
5	0	0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
		0.0%		D
6		$\neg$		Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Strate.
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
				(7.6 cm) or more in diameter at breast height (DBH), regardless
_Herb Stratum_ (Plot size:)	0	= Total Cover		of height.
1. Zea mays	50	<b>1</b> 00.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		0.0%		1 '
2				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%		, ,
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
6	0			Five Vegetation Strata:
7	0	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
		0.0%		diameter at breast height (DBH).
9		$\neg$		Sapling stratum – Consists of woody plants, excluding woody
10	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
		= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	50	- Total Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
• •		0.004		species, except woody vines, less than approximately 3 ft (1
2	0			m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
	0	0.0%		
5				Hydrophytic
6	0	0.0%		Vegetation Present?  Yes No   No
	0	= Total Cover		Present? Yes V NO V
				I
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil Sampling Point: D-040 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/3 <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 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project	Cit	y/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: KY	Sampling Point: D-041
Investigator(s): J. Stelly and C. Hoffmann	Se	ction, Township, Range: S	TR
Landform (hillslope, terrace, etc.): Flat	Loca	al relief (concave, convex, r	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N		48051 <b>Lo</b> r	ng.: -85.94495
Soil Map Unit Name: Gatton silt loam (2 to			NWI classification: N/A
Are climatic/hydrologic conditions on the si	te typical for this time of year?	Yes ● No ○ (If no	, explain in Remarks.)
	ydrology 🗌 significantly dis	sturbed? Are "Norma	l Circumstances" present? Yes ● No ○
Are Vegetation 🔲 , Soil 🔲 , or Hy	ydrology	ematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach	site map showing sam	pling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes			
Hydric Soil Present? Yes	○ No •	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present? Yes	○ No •	within a Wetland?	163 ( 160 (
Remarks:			
Hydrology			
Wetland Hydrology Indicators:			C
Primary Indicators (minimum of one requ	ired: check all that apply)		Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14	4)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor		Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres a		Moss Trim Lines (B16)
☐ Water Marks (B1)	Presence of Reduced Iro		Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction i		Crayfish Burrows (C8)
☐ Drift deposits (B3)	☐ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	Other (Explain in Remar	·ks)	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			
Water Table Present? Yes No	Depth (inches):	Wotland Hyd	rology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	wetiana nya	rology Present: 165 C 110 C
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pr	revious inspections), if avai	ilable:
Remarks:			

		-Species?	Sampling Point: <u>D-041</u>
	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: 0 (A)
2		0.0%	
		0.0%	Total Number of Dominant
3			Species Across All Strata:1(B)
4		0.0%	Dercent of deminent Charles
5	0_	0.0%	Percent of dominant Species That Are OBL, FACW, or FAC:
6	0		That the obe, they of the
7	0		Prevalence Index worksheet:
8.		0.0%	Total % Cover of: Multiply by:
	0 :	= Total Cover	OBL species
Sapling-Sapling/Shrub Stratum (Plot size:	)		FACW species x 2 =0
1	0	0.0%	-
2	0	0.0%	FAC species $0 \times 3 = 0$
3		0.0%	FACU speci es $\underline{50}$ x 4 = $\underline{200}$
	_	0.0%	UPL species $0 \times 5 = 0$
4		0.0%	Column Totals: <u>50</u> (A) <u>200</u> (B)
5	_		(1)
6			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%
0	0	0.0%	
		= Total Cover	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)			Morphological Adaptations <sup>1</sup> (Provide supporting
1		0.0%	data in Remarks or on a separate sheet)
2	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:
		0.0%	Four Vegetation Strata:
6			Tree stratum – Consists of woody plants, excluding vines, 3 in.
7			(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size:)	:	= Total Cover	of height.
1. Echinochloa crusgalli	50	✓ 100.0% FACU	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%	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			in height.
5	0		
6	0		Five Vegetation Strata:
7	0	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
9		0.0%	diameter at breast height (DBH).
0	0	0.0%	Sapling stratum – Consists of woody plants, excluding woody
·		0.0%	vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1			Shrub stratum – Consists of woody plants, excluding woody
2	0	0.0%	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	50=	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%	including herbaceous vines, regardless of size, and woody
	0	0.0%	species, except woody vines, less than approximately 3 ft (1 m) in height.
2		0.0%	, ,
3			Woody vines – Consists of all woody vines, regardless of height.
4	0		
5	0		Hydrophytic
6	0	0.0%	Vegetation
	0	= Total Cover	Present? Yes No •
Remarks: (Include photo numbers here or on a separate she	et.)		

Soil Sampling Point: D-041 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix

(inches)	Color (m	oist)	%	Color (moist)	%	Tvpe	Loc2	Texture	Remarks
0-21	10YR 3	3/1	100					Loam	
				-		-			
	-						-	-	
1									
Type: C=Conc	entration. $D=1$	Depletion.	RM=Reduc	ced Matrix, CS=Covere	d or Coated	d Sand Gra	ins <sup>2</sup> Locat	tion: PL=Pore Lining. M=N	<i>M</i> atrix
Hydric Soil II	ndicators:							1 P 1 6 B 1	
					-7\			Indicators for Prob	lematic Hydric Soils <sup>3</sup> :
Histosol (A				Dark Surface (S				2 cm Muck (A10	) (MLRA 147)
Histic Epip	edon (A2)			Polyvalue Below	Surface (S	88) (MLRA	147,148)		
Black Histi	c (A3)			Thin Dark Surfa	ce (S9) (MI	RA 147. 1	48)	Coast Prairie Rec	lox (A16)
							,	(MLRA 147,148)	
	Sulfide (A4)			Loamy Gleyed N				Piedmont Flood	olain Soils (F19)
Stratified L	_ayers (A5)			Depleted Matrix	(F3)			(MLRA 136, 147	)
2 cm Muck	(A10) (LRR N	1)		Redox Dark Sur	face (F6)			□ .v Ch-ll D-	
								□ very Shallow Da	rk Surface (TF12)
Depleted E	Below Dark Su	rface (A1	1)	Depleted Dark S		)		Other (Explain in	Remarks)
Thick Dark	Surface (A12)	2)		Redox Depressi	ons (F8)				
	ck Mineral (S1)			☐ Iron-Manganese	e Masses (F	12) (LRR I	N.		
MLRA 147	1/12)	) (LKK N,		MLRA 136)	(	/ (			
					/E12) /MI	A 107 10	2)		
Sandy Gley	yed Matrix (S4	l)		Umbric Surface	(F13) (MLI	RA 136, 12	(2)	3	
Sandy Red	lox (S5)			Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	Indicators of	f hydrophytic vegetation and
Stripped M				Red Parent Mat					drology must be present, listurbed or problematic.
Stripped iv	Iatrix (30)			Reu Parent Mat	enai (FZT)	(IVILKA 12	7, 147)	uriless c	isturbed or problematic.
<b>5</b>	(15.1								
Restrictive La	iyer (it obser	rvea):							
Type:									
Depth (inch	nes):							Hydric Soil Present?	Yes ○ No ●
	.00).								
Remarks:									

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-042
Investigator(s): J. Stelly and C. Hoffm	ann	Section, Township, Range: S	TR
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat ·	37.69207 <b>Lo</b>	ng.: -85.94741
Soil Map Unit Name: Gatton silt loan		37.07207	NWI classification: N/A
Are climatic/hydrologic conditions on		ear? Yes   No (If no	o, explain in Remarks.)
		•	Il Circumstances" present? Yes • No
			in on our instances present.
-			explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No •		
Hydric Soil Present?	Yes O No •	Is the Sampled Area	0 6
Wetland Hydrology Present?	Yes O No •	within a Wetland?	Yes ○ No •
Remarks:			
Hydrology			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery Water-Stained Leaves (B9) Aquatic Fauna (B13)  Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream gau	True Aquatic Plant Hydrogen Sulfide ( Oxidized Rhizosph Presence of Reduct Recent Iron Reduct Thin Muck Surface Other (Explain in F  (B7)  No  Depth (inches): No  Depth (inches):	Odor (C1) peres along Living Roots (C3) ped Iron (C4) petion in Tilled Soils (C6) petion (C7) Remarks)  Wetland Hyde	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Microtopographic Relief (D4)  FAC-neutral Test (D5)

		Dominan		Sampling Point: <u>D-042</u>
	Absolute % Cover	itonoti at		Dominance Test worksheet:
1 . Acer nigrum	_40_	50.09	6 FACU	Number of Dominant Species That are OBL, FACW, or FAC:
2. Celtis occidentalis	30	37.59	6 FACU	T. I. N. J. C.
3. Ulmus americana	10	12.59	6 FACW	Total Number of Dominant Species Across All Strata: 2 (B)
4	0	0.0%	<u> </u>	
5		0.0%	<u> </u>	Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6		0.0%	)	That Are OBL, FACW, or FAC: 0.0% (A/B)
7	_	0.0%	<u> </u>	Prevalence Index worksheet:
8	0	0.0%	)	Total % Cover of: Multiply by:
(8)	80	= Total Co	/er	0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)				FACW species 10 x 2 = 20
1		0.0%		FAC species x 3 =0
2	0	0.0%		FACU species $70 \times 4 = 280$
3	0			· ·
4	0	0.0%		
5	0	0.0%		Column Totals: <u>80</u> (A) <u>300</u> (B)
6	0			Prevalence Index = B/A = <u>3.750</u>
7	0	0.0%	<u> </u>	Hydrophytic Vegetation Indicators:
8	0	0.0%	<u> </u>	Rapid Test for Hydrophytic Vegetation
9		0.0%	<u> </u>	Dominance Test is > 50%
10		0.0%	<u> </u>	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Total Co	/er	
		0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		
3		$\overline{}$		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6				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 Co	/er	of height.
1	0_	0.0%	<u> </u>	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%	<u> </u>	Herb stratum – Consists of all herbaceous (non-woody) plants,
3	0	0.0%	<u> </u>	regardless of size, and all other plants less than 3.28 ft tall.
4	0	0.0%	<u> </u>	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%	<u> </u>	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 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 Co		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, including herbaceous vines, regardless of size, and woody
1	0			species, except woody vines, less than approximately 3 ft (1
2	0			m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of
4	0			height.
5	0	0.0%	<u> </u>	Hydrophytic
6	0	0.0%	<u> </u>	Vegetation
	0	= Total Co	ver	Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	et.)			1
Kernarks. (Hiciade prioto numbers here of our a separate shee	<i>)</i>			

Soil Sampling Point: D-042 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Matrix Depth Color (moist) % Type 1 (inches) Color (moist) Loc2 Texture 0-21 10YR 3/1 <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:** 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) ☐ Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Redox Depressions (F8) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type:

US Army	Corps of	Engineers

Depth (inches):

Remarks:

Yes 🔾

**Hydric Soil Present?** 

No 💿

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-043
Investigator(s): J. Stelly and C. Hoff	fmann	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex,	none): flat Slope:0.0_ % /0.0 °
Subregion (LRR or MLRA): LRR N	 √ Lat	:: 37.69172 Lo	ong.: -85.94932
Soil Map Unit Name: Sonora silt loa			NWI classification: N/A
Are climatic/hydrologic conditions o		year? Yes  No (If no	o, explain in Remarks.)
Are Vegetation, Soil		•	al Circumstances" present? Yes  No
Are Vegetation . , Soil .		•	, explain any answers in Remarks.)
Summary of Findings - At	ttach site map showing	sampling point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O No 💿		
Hydric Soil Present?	Yes 🔾 No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes $\bigcirc$ No $lacktriangle$	within a Wetland?	Tes C NO C
Remarks:		<u>,</u>	
Hydrology			
Wetland Hydrology Indicators:  Primary Indicators (minimum of or	one required: check all that annly	)	Surface Sail Cracks (R4)
Surface Water (A1)	True Aquatic Pla		☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfid	, ,	Drainage Patterns (B10)
Saturation (A3)		oheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Red		Dry Season Water Table (C2)
Sediment Deposits (B2)		luction in Tilled Soils (C6)	Crayfish Burrows (C8)
☐ Drift deposits (B3)	☐ Thin Muck Surfa		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in	• ,	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		,	Geomorphic Position (D2)
Inundation Visible on Aerial Imager	ry (B7)		Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	•	):	
Water Table Present? Yes	No Depth (inches)	):	drology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes	No Depth (inches)		arology Present? Tes 🔾 NO 🔾
Describe Recorded Data (stream ga	auge, monitoring well, aerial pho	otos, previous inspections), if ava	ailable:
Remarks:			
indinaria.			

		-Species? -		Sampling Point: <u>D-043</u>
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:0(A)
2	0	0.0%		<b></b>
3		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Demont of deminent Charles
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		I
2	_	0.0%		FAC speci es x 3 =
				FACU speci es
3	0			l ·
4	0	0.0%		
5	0	0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
		0.0%		D   1   1   1   1   1   1   1   1   1
6		$\neg$		Prevalence Index = B/A =
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3		0.0%		1 Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Streets
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7				(7.6 cm) or more in diameter at breast height (DBH), regardless
_Herb Stratum_ (Plot size:)	0	= Total Cover		of height.
1. Zea mays	50	<b>1</b> 00.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		0.0%		, ,
2				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%		, ,
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
6	0			Five Vegetation Strata:
7	0	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
		0.0%		diameter at breast height (DBH).
9		$\neg$		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
12				vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	50	= 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 (1
2				m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5				Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover		Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	et.)			

	Color	Matrix (moist)	%	Color (moist)	dox Featu %	Tvpe 1	Loc2	Texture	Rem	arks
)-21	10YR	3/1	100					Loam		
	-	-	-							
	-				-					
			n. RM=Redu	uced Matrix, CS=Covere	ed or Coate	d Sand Grai	ns <sup>2</sup> Locat	ion: PL=Pore Lining. M=M	atrix	
	ndicators:				27)			Indicators for Proble	ematic Hydric	: Soils 3:
Histosol ( <i>H</i>	oedon (A2)			Dark Surface (	•	SQ) (MI DA	147 149)	2 cm Muck (A10)	(MLRA 147)	
Black Histi				Thin Dark Surfa				Coast Prairie Redo	ox (A16)	
	Sulfide (A4	)		Loamy Gleyed			,	(MLRA 147,148)	oin Coile (F10)	
Stratified I	Layers (A5)			Depleted Matri	k (F3)			Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)	
2 cm Mucl	k (A10) (LRI	R N)		Redox Dark Su				☐ Very Shallow Dark Surface (TF12)		
•	Below Dark		11)	Depleted Dark Surface (F7)				Other (Explain in Remarks)		
	k Surface (A	•		Redox Depress Iron-Manganes		E12) /I DD N	ı			
Sandy Mu MLRA 147	ck Mineral ( 7, 148)	S1) (LRR N	<b>I</b> ,	MLRA 136)	e iviasses (	F12) (LKK I	1,			
	eyed Matrix	(S4)		Umbric Surface (F13) (MLRA 136, 122)				3		
Sandy Red				Piedmont Floor	dplain Soils	(F19) (MLR	A 148)	wetland hydrology must be present,		
Stripped N	Matrix (S6)			Red Parent Ma	terial (F21)	(MLRA 127	, 147)			
trictive La	ayer (if ob:	served):								
	ajo. ( oz.									
Type:								Hydric Soil Present?	Yes 🔾	No 💿
• • • • • • • • • • • • • • • • • • • •	hes):						I			
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Depth (inch	hes):									
Type: Depth (inch marks:	hes):									
Depth (inch	hes):									
Depth (inch	hes):									

Project/Site: Telesto Solar Project	City/County:	Cecilia/Hardin	Sampling Da	te: 24-Feb-21
Applicant/Owner: 7x Energy		State: KY	Sampling Point:	D-044
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 %/ 0.0 °
Subregion (LRR or MLRA): LRR N	Lat.: 37.69083	Long.: -{		Datum: WGS 1984
Soil Map Unit Name: Sonora silt loam (2 to 6 percent			NWI classification: PUB	-
		$\overline{}$		
Are climatic/hydrologic conditions on the site typical fo	_	, , ,	in in Remarks.)	'es ● No ○
Are Vegetation   , Soil   , or Hydrology	significantly disturbed?	Are "Normal Circui	mstances" present?	es 🤍 NO 🔾
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 📙	naturally problematic?	(If needed, explain	n any answers in Remark	s.)
Summary of Findings - Attach site map	showing sampling poi	nt locations, tr	ansects, importan	nt features, etc.
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes No •		ampled Area Yes	● No ○	
Wetland Hydrology Present? Yes   No	within a	Wetland?	- NO -	
Remarks:				
Hydrology				
Wetland Hydrology Indicators:		Coor	adam, Indiaatam (minimum a	f tue required)
Primary Indicators (minimum of one required; check	all that apply)		ndary Indicators (minimum o urface Soil Cracks (B6)	r two requirea)
	rue Aquatic Plants (B14)		parsely Vegetated Concave S	Surface (B8)
	ydrogen Sulfide Odor (C1)		rainage Patterns (B10)	(= 0)
Saturation (A3)	xidized Rhizospheres along Living Ro	ots (C3)	loss Trim Lines (B16)	
Water Marks (B1)	resence of Reduced Iron (C4)	D	ry Season Water Table (C2)	
	ecent Iron Reduction in Tilled Soils (0	C6) C	rayfish Burrows (C8)	
	nin Muck Surface (C7)		aturation Visible on Aerial Im	
	ther (Explain in Remarks)		tunted or Stressed Plants (D'	1)
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7)			eomorphic Position (D2)	
Water-Stained Leaves (B9)			hallow Aquitard (D3) licrotopographic Relief (D4)	
Aquatic Fauna (B13)			AC-neutral Test (D5)	
Field Observations:			Ao ficultal fest (B3)	
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes No •	Depth (inches):			
Saturation Present? (includes capillary frings)  Yes No   No		Wetland Hydrology	Present? Yes	No O
(includes capillary fringe)	Depth (inches):	-#!> !E!!- - -		
Describe Recorded Data (stream gauge, monitoring w	ell, aerial photos, previous inspe	ctions), if available:		
Remarks:				
Remarks:				

		Dominant		Sampling Point: D-044
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:0 (A)
2		0.0%		
3		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4		0.0%		
5		0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0	= Total Cover		0BL speci es0 x 1 =0
1.		0.0%		FACW species
2		0.0%		FAC species x 3 =0
3		0.0%		FACU speci es x 4 =0
4	_	0.0%		UPL species $\underline{50}$ x 5 = $\underline{250}$
5		0.0%		Column Totals: <u>50</u> (A) <u>250</u> (B)
6		0.0%		Prevalence Index = B/A = 5.000
7		0.0%		
8	_	0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
10		0.0%		Prevalence Index is ≤3.0 ¹
		= Total 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%		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
_Herb Stratum_ (Plot size:)	0	= Total Cover		of height.
1. Zea mays	50	<b>1</b> 00.0%	UPI	Sapling/shrub stratum – Consists of woody plants, excluding
2.		0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  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 Strate
7	0	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 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.
	50	= 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	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		Hudrank, dia
6		0.0%		Hydrophytic Vegetation
		= Total Cover		Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	et.)			
. Carrier in the second of the separate shock	•			

Soil Sampling Point: D-044 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/1 <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:** 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-045
Investigator(s): J. Stelly and C. Hoff	mann	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, convex,	none): _concave
Subregion (LRR or MLRA): LRR N	Lat.:	3769283 Lo	ong.: -85.95011 Datum: WGS 1984
Soil Map Unit Name: W- Water			NWI classification: N/A
Are climatic/hydrologic conditions o	n the site typical for this time of y	ear? Yes   No   (If no	o, explain in Remarks.)
Are Vegetation, Soil			al Circumstances" present? Yes   No
Are Vegetation . , Soil .	, or Hydrology 🔲 naturally բ	problematic? (If needed	, explain any answers in Remarks.)
Summary of Findings - At	tach site map showing s	sampling point locatio	ns, 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?	163 0 110 0
Remarks: Wet-17			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plant	ts (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide	, ,	Drainage Patterns (B10)
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduc	• •	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduc	ction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface	e (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in F	Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imager	ry (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):	Д	
Water Table Present? Yes			
	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Wetland Hy	drology Present? Yes   No
(includes capillary fringe) Yes			**
Describe Recorded Data (stream ga	auge, monitoring well, aerial photo	os, previous inspections), if ava	ailable:
Remarks:			

	Absolute % Cover	Rel.Strat. Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		•
2		0.0%	•
2			That are OBL, FACW, or FAC:1(A)
3	0	0.0%	
		0.0%	Total Number of Dominant Species Across All Strata: 1 (B)
		0.0%	Species Across Air Strata.
5		0.0%	Percent of dominant Species
6		0.0%	That Are OBL, FACW, or FAC: 100.0% (A/B)
		0.0%	Prevalence Index worksheet:
7	0	0.0%	Total % Cover of: Multiply by:
8			
Sapling-Sapling/Shrub Stratum (Plot size:)	0 =	Total Cover	0BL species 0 x 1 = 0
1	0	0.0%	FACW species $70 \times 2 = 140$
2	0	0.0%	FAC species $0 \times 3 = 0$
3	0	0.0%	FACU speci es $0 \times 4 = 0$
		0.0%	UPL species $0 \times 5 = 0$
4		0.0%	Column Totals:70 (A)140 (B)
5	_		
6		0.0%	Prevalence Index = B/A = 2.000
7	_	0.0%	Hydrophytic Vegetation Indicators:
8			✓ Rapid Test for Hydrophytic Vegetation
9			✓ Dominance Test is > 50%
10	0	0.0%	✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0 =	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)
	0	0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3	0	0.0%	be present, unless disturbed or problematic.
4			Definition of Vegetation Strata:
5		0.0%	_
6			Four Vegetation Strata:  Tree stratum – Consists of woody plants, excluding vines, 3 in.
7	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%	
	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%	Sapling stratum – Consists of woody plants, excluding woody
0	0	0.0%	vines, approximately 20 ft (6 m) or more in height and less
1		0.0%	than 3 in. (7.6 cm) DBH.
2	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:)	70 =	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.
	0	0.0%	Woody vines – Consists of all woody vines, regardless of
3	0	0.0%	height.
4			
5			Hydrophytic
6			Vegetation Present?  Yes  No
	0 =	= Total Cover	FIESEIR!

Soil Sampling Point: D-045

		the depth r				nfirm the a	absence of indicators.)	
Depth	Matrix			dox Featu	Tvpe 1	Loc2	Tt	Damanka
(inches) 0-21	Color (moist) 10YR 3/1	90	Color (moist) 5YR 4/6	<del>%</del> 10	C	M	<u>Texture</u> Loam	Remarks
			JIK 470			IVI	Loain	
	-		-					
	-							
<sup>1</sup> Type: C=Cond	centration. D=Depletion	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil II	ndicators:						Indicators for Proble	matia Hudria Sails 3.
Histosol (A			Dark Surface (	S7)				•
Histic Epip			Polyvalue Belo		(S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)
Black Histi			Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed			,	(MLRA 147,148)	
	_ayers (A5)		Depleted Matri				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)
	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	(Surface (TE12)
	Below Dark Surface (A	.11)	Depleted Dark		7)			
	Surface (A12)	111)	✓ Redox Depress		,		Other (Explain in	Remarks)
	ck Mineral (S1) (LRR I	N.	☐ Iron-Manganes		F12) (LRR I	٧.		
MLRA 147	, 148)	ν,	MLRA 136)	•	. , ,	•		
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	2	
Sandy Red			Piedmont Floo	dplain Soils	(F19) (MLF	A 148)	<sup>3</sup> Indicators of I	hydrophytic vegetation and rology must be present,
Stripped M			Red Parent Ma	iterial (F21)	(MLRA 127	', 147)		sturbed or problematic.
				<u> </u>	<u> </u>	<u> </u>		
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (inch	nes):						,	103 0 110 0
Remarks:								

	City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
	State: _k	Y Sampling Point: D-046
fmann	Section, Township, Range:	S T R
	Local relief (concave, convex,	none): Slope: _0.0_ % / _0.0 °
N Lat	.: 37.69195 Lo	ong.: -85.95038
		NWI classification: PUBH
on the site typical for this time of	year? Yes   No (If n	o, explain in Remarks.)
		al Circumstances" present? Yes ● No ○
, or Hydrology 🔲 naturally	problematic? (If needed	, explain any answers in Remarks.)
	sampling point location	ns, transects, important features, etc.
	Is the Sampled Area	Yes ● No ○
Yes O No 💿	within a Wetland?	
		Secondary Indicators (minimum of two required)
True Aquatic Plai Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Thin Muck Surfac Other (Explain in ery (B7)  No Depth (inches) Depth (inches)	nts (B14) e Odor (C1) cheres along Living Roots (C3) uced Iron (C4) uction in Tilled Soils (C6) ce (C7) n Remarks)  : : Wetland Hy	Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Microtopographic Relief (D4)  FAC-neutral Test (D5)  drology Present? Yes No ●
	on the site typical for this time of , or Hydrology   significal , or Hydrology   naturally    Ittach site map showing    Yes   No    Yes   No    Yes   No    Yes   No    Yes   No    True Aquatic Pla    Hydrogen Sulfide    Oxidized Rhizosy    Presence of Red    Recent Iron Red    Thin Muck Surfa    Other (Explain in lery (B7)	Local relief (concave, convex, not be an (2 to 6 percent slopes)  on the site typical for this time of year? Yes No (If not not hydrology significantly disturbed? Are "Normed, or Hydrology naturally problematic? (If needed attach site map showing sampling point location attach site sampled Area within a Wetland?  Is the Sampled Area within a Wetland?  In the Sampled Area within a Wetland?

		-Species? -		Sampling Point: D-046
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
1				That are OBL, FACW, or FAC: (A)
2		0.0%		Total Number of Dominant
3	0			Species Across All Strata:1 (B)
4	0	0.0%		
5		0.0%		Percent of dominant Species
	_	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(2)	0	= Total Cover		0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 0 x 2 = 0
1	0	0.0%		
2	_	0.0%		FAC species x 3 = 0
3		0.0%		FACU speci es x 4 = 200
				UPL species $0 \times 5 = 0$
4	-			'
5				Column Totals: <u>50</u> (A) <u>200</u> (B)
6	0	0.0%		Prevalence Index = B/A = 4.000
7	0	0.0%		
		0.0%		Hydrophytic Vegetation Indicators:
8				Rapid Test for Hydrophytic Vegetation
9				Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)		= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0			Problematic Hydrophytic vegetation (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:
				Four Vegetation Strata:
6				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.
	50	<b>1</b> 00.0%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
1. Echinochloa crusgalli			FACU	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			, ,
4	0_	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
	0	0.0%		
6				Five Vegetation Strata:
7	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%		Sapling stratum – Consists of woody plants, excluding woody
	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
_Woody Vine Stratum_ (Plot size:)	50	= 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 (1
2	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			Vegetation   Present?   Yes ○ No ●
	0	= Total Cover	· 	Tresent:
Remarks: (Include photo numbers here or on a separate shee	et.)			
remarks. (morade priore numbers here of on a separate shee	,			

Soil Sampling Point: D-046 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/1 <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:** 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

Project/Site: Telesto Solar Project	City/County: Cecilia/Hardin Sampling D	ate: 24-Feb-21
Applicant/Owner: 7x Energy	State: KY Sampling Point:	D-047
Investigator(s): J. Stelly and C. Hoffmann	Section, Township, Range: S T	R
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): Slope	e: 0.0 %/ 0.0 °
Subregion (LRR or MLRA): LRR N La	.: 37.69129 <b>Long</b> .: -85.95219	Datum: WGS 1984
Soil Map Unit Name: Nb - Newark silt loam, 0-2 percent slopes	NWI classification: N/	
Are climatic/hydrologic conditions on the site typical for this time of		
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 significa	ntly disturbed? Are "Normal Circumstances" present?	Yes ● No ○
Are Vegetation . , Soil . , or Hydrology . naturall	problematic? (If needed, explain any answers in Remark	ks.)
Summary of Findings - Attach site map showing	sampling point locations, transects, importa	nt features, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	Is the Sampled Area Yes No   No	
Wetland Hydrology Present? Yes ● No ○	within a Wetland?	
Remarks: Wet-18		
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)	, ,	Surface (B8)
✓ High Water Table (A2)     ☐ Hydrogen Sulfice		
	pheres along Living Roots (C3)	
Water Marks (B1) Presence of Re		)
	uction in Tilled Soils (C6) Crayfish Burrows (C8)	(22)
Drift deposits (B3)  Thin Muck Surfa		
☐ Algal Mat or Crust (B4) ☐ Other (Explain ☐ Iron Deposits (B5)	,	01)
Inundation Visible on Aerial Imagery (B7)	☐ Geomorphic Position (D2)☐ Shallow Aquitard (D3)	
✓ Water-Stained Leaves (B9)	☐ Microtopographic Relief (D4)	
Aquatic Fauna (B13)	FAC-neutral Test (D5)	
Field Observations:	The neutral rest (De)	
Surface Water Present? Yes No Depth (inches	: 4	
Water Table Present? Yes No Depth (inches	: 1	
	Wetland Hydrology Present? Yes	No O
(includes capillary fringe) Yes No Depth (inches		
Describe Recorded Data (stream gauge, monitoring well, aerial ph	tos, previous inspections), if available:	
Remarks:		
incinal k3.		

		-Species? -		Sampling Point: D-047
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
1				That are OBL, FACW, or FAC:1(A)
2		0.0%		Total Number of Dominant
3	0	0.0%		Species Across All Strata:1 (B)
4	0	0.0%		
5		0.0%		Percent of dominant Species
	_	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6				
7				Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(Dlat size)	00	= Total Cover		0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)			FACW species
1	0			FAC species 0 x 3 = 0
2	0_	0.0%		
3	0	0.0%		FACU speci es $0 \times 4 = 0$
4	^	0.0%		UPL species $0 \times 5 = 0$
**		0.0%		Column Totals: 70 (A) 140 (B)
5				OF ARM   FOR ARM   100
6	0			Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
		0.0%		✓ Dominance Test is > 50%
10				✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cover		Morphological Adaptations 1 (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definition of Variation Streets
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		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. Cyperus esculentus	70	100.0%_	FACW	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
	0	0.0%		in height.
5				
6				Five Vegetation Strata:
7	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%		Sapling stratum – Consists of woody plants, excluding woody
	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
_Woody Vine Stratum_ (Plot size:)	70	= 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 (1
2				m) in height.
3		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		
• •	0	0.0%		Hydrophytic
6				Vegetation Present?  Yes  No
	0	= Total Cover		
Remarks: (Include photo numbers here or on a separate shee	et.)			
•				

Soil Sampling Point: D-047

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indica	ator or co	nfirm the a	bsence of indicators.)	
Depth	Matrix		Red	lox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	Texture	Remarks
0-21	10YR 3/3	90	5YR 4/6	10	C	M	Loam	
	-			-				
	-							
						-		
<sup>1</sup> Type: C=Cond	centration. D=Depletion	n. RM=Reduce	ed Matrix, CS=Covere	d 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 3:
Histosol (A	A1)		Dark Surface (S	•			2 cm Muck (A10)	
Histic Epip	edon (A2)		Polyvalue Belov	Surface (	S8) (MLRA	147,148)		
☐ Black Histi	c (A3)		Thin Dark Surfa	ce (S9) (M	LRA 147, 1	48)	Coast Prairie Redo (MLRA 147,148)	x (A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed I	Matrix (F2)			Piedmont Floodpla	sin Soile (E10)
Stratified L	_ayers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	IIII 30llS (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)			Very Shallow Dark	Surface (TF12)
Depleted B	Below Dark Surface (A	11)	Depleted Dark S	Surface (F7	')		Other (Explain in F	
	Surface (A12)	,	✓ Redox Depressi	ons (F8)			Utilei (Explain in i	verilai ks)
	ck Mineral (S1) (LRR N	l.	Iron-Manganes	e Masses (I	F12) (LRR I	٧,		
MLRA 147	, 148)	,	MLRA 136)					
	yed Matrix (S4)		Umbric Surface				3 Indicators of h	nydrophytic vegetation and
Sandy Red			☐ Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	wetland hydi	rology must be present,
Stripped M	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 127	7, 147)	unless dis	turbed or problematic.
Restrictive La	yer (if observed):							
Type:	, , , , , , , , , , , , , , , , , , , ,							
Depth (inch							Hydric Soil Present?	Yes   No
	103).							
Remarks:								

Project/Site: Telesto Solar Project	City/County: Cecilia/Har	rdin Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy	State	e: KY Sampling Point: D-048
Investigator(s): J. Stelly and C. Hoffmann	Section, Township, Rang	ge: S TR
Landform (hillslope, terrace, etc.):	Local relief (concave, con	vex, none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N La	– at.: 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	f year? Yes 💿 No 🔾 (	(If no, explain in Remarks.)
Are Vegetation $\ \square$ , Soil $\ \square$ , or Hydrology $\ \square$ signific	antly disturbed? Are "No	ormal Circumstances" present? Yes   No
Are Vegetation $\ \square$ , Soil $\ \square$ , or Hydrology $\ \square$ natural	ly problematic? (If nee	eded, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	g sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •		
Hydric Soil Present? Yes ○ No •	Is the Sampled A	
Wetland Hydrology Present? Yes ○ No •	within a Wetland	1? 103 0 110 0
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that appl		Surface Soil Cracks (B6)
Surface Water (A1)  True Aquatic P		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Saturation (A3)  Hydrogen Sulfi  Oxidized Rhizo		☐ Drainage Patterns (B10)
	spheres along Living Roots (C3) educed Iron (C4)	<ul><li>✓ Moss Trim Lines (B16)</li><li>✓ Dry Season Water Table (C2)</li></ul>
	eduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	, ,	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain	• •	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 (inche	s):	
Water Table Present? Yes No Depth (inche		
0.1 - 1/2 - 10	Wetland	d Hydrology Present? Yes O No 💿
(includes capillary fillige)	·	
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), i	if available:
Remarks:		

		—Species? -		Sampling Point: <u>D-048</u>
	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	
1. Acer nigrum	40	<b>✓</b> 44.4%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
0.000	20	33.3%	FACU	That are obe, thow, of the
2. Celtis occidentalis				Total Number of Dominant
3. Ulmus americana		22.2%	FACW	Species Across All Strata:3 (B)
4	0			
5	0	0.0%		Percent of dominant Species That Are ORL FACW or FAC: 33.3% (A/B)
6		0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)
7		0.0%		Prevalence Index worksheet:
	0	0.0%		Total % Cover of: Multiply by:
8				
Sapling-Sapling/Shrub Stratum (Plot size:	90	= Total Cover		0BL species 0 x 1 = 0
		0.0%		FACW species
1				FAC species
2				FACU speciles
3	0	0.0%		'
4	0	0.0%		or E specifics ————————————————————————————————————
5	0	0.0%		Column Totals: 90 (A) 320 (B)
6.	0	0.0%		Prevalence Index = B/A = 3.556
		0.0%		Trevalence mack = B/A =
7				Hydrophytic Vegetation Indicators:
8				Rapid Test for Hydrophytic Vegetation
9	0			☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cover		
	0	0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		Troblematic rigurophytic vegetation (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%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
				Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		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%		Herb stratum – Consists of all herbaceous (non-woody) plants,
	0	0.0%		regardless of size, and all other plants less than 3.28 ft tall.
3				Woody vines – Consists of all woody vines greater than 3.28 ft
4		0.0%		in height.
5	0	0.0%		
6	0			Five Vegetation Strata:
7	0	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
9.		0.0%		diameter at breast height (DBH).
				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			
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,
	0	0.0%		including herbaceous vines, regardless of size, and woody
1				species, except woody vines, less than approximately 3 ft (1
2				m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		l
6.	0	0.0%		Hydrophytic Vegetation
U				Present? Yes O No •
	0	= Total Cover		
Remarks: (Include photo numbers here or on a separate shee	et.)			
•				

Soil Sampling Point: D-048 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Matrix Depth (inches) Color (moist) Color (moist) % Type Loc2 Texture 0-21 10YR 3/3 <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 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and 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: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

US Army Corps of Engineers

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 24-Feb-21
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: D-049
Investigator(s): J. Stelly and C. Hoffm	nann	Section, Township, Range: S	TR
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N		37.69001 <b>Lo</b>	ng.: -85.95394
Soil Map Unit Name:		37.07001	NWI classification: N/A
·	the cite tuminal for this time of us	ar? Yes   No   (If no	
Are climatic/hydrologic conditions on		•	o, explain in Remarks.)
Are Vegetation, Soil			in on our stances present.
Are Vegetation, Soil	, or Hydrology L naturally p	roblematic? (If needed,	explain any answers in Remarks.)
<b>Summary of Findings - Att</b>	ach site map showing s	ampling point location	ns, 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?	Yes ○ No ●
Remarks:			
Remarks.			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one	e 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 O	dor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizosphe	res along Living Roots (C3)	Moss Trim Lines (B16)
☐ Water Marks (B1)	Presence of Reduce	ed Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduct	ion 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 Re	emarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		•	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery	<i>i</i> (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):		
Saturation Present? (includes capillary frings)  Yes	No Depth (inches):	Wetland Hyd	Irology Present? Yes ○ No •
(includes capillary fringe)  Describe Recorded Data (stream gau		s previous inspections) if ava	- ilable:
Describe Recorded Bata (stream gat	age, monitoring well, dendi photos	s, previous inspections), ii uvu	nuole.
Remarks:			
1			

		Sampling Point: <u>D-049</u>
Absolute Rel.Si	trat. Indicator	Domination 1991 Horizon
	).0%	Number of Dominant Species That are OBL, FACW, or FAC:0(A)
00	).0%	T. I.W. J. C.
	).0%	Total Number of Dominant Species Across All Strata: 1 (B)
	).0%	
	).0%	Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
	).0%	That Are OBL, FACW, or FAC: 0.0% (A/B)
_	).0%	Prevalence Index worksheet:
	).0%	Total % Cover of: Multiply by:
0 = Total	Cover	0BL speci es x 1 =0
	) 0%	FACW species 0 x 2 = 0
		FAC species x 3 =0
		FACU speciles <u>75</u> x 4 = <u>300</u>
		UPL species $0 \times 5 = 0$
		Column Totals: 75 (A) 300 (B)
		Prevalence Index = B/A = 4.000
		Hydrophytic Vegetation Indicators:
		Rapid Test for Hydrophytic Vegetation
		☐ Dominance Test is > 50%
		Prevalence Index is ≤3.0 <sup>1</sup>
= Total	Cover	☐ Morphological Adaptations <sup>1</sup> (Provide supporting
	).0%	data in Remarks or on a separate sheet)
0	).0%	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	).0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	).0%	be present, unless disturbed or problematic.
0 □0	).0%	Definition of Vegetation Strata:
	).0%	Four Vegetation Strata:
	).0%	Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless
0 = Total	Cover	of height.
	00.0% FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
	).0%	Herb stratum – Consists of all herbaceous (non-woody) plants,
0 0	).0%	regardless of size, and all other plants less than 3.28 ft tall.
0 0	).0%	Woody vines – Consists of all woody vines greater than 3.28 ft
0 0	).0%	in height.
0 0	).0%	Five Vegetation Streets
	).0%	Five Vegetation Strata:
	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%	diameter at breast height (DBH).
		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.
		Shrub stratum – Consists of woody plants, excluding woody
		vines, approximately 3 to 20 ft (1 to 6 m) in height.
		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.
		Woody vines – Consists of all woody vines, regardless of height.
0	0.0%	· • • • • • • • • • • • • • • • • • • •
		1
	0.0%	Hydrophytic
	0.0%	Hydrophytic Vegetation Present?  Yes No   No
	Absolute   Special Rel.Si   Cover	Status   Cover   Co

Soil Sampling Point: D-049 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Matrix Depth (inches) Color (moist) Color (moist) % Type Loc<sup>2</sup> Texture 0-21 10YR 3/1 <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:** 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) Black Histic (A3) Thin 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) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) ☐ Depleted Below Dark Surface (A11) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRÁ 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4)  $^{\scriptsize 3}$  Indicators of hydrophytic vegetation and Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Yes 🔾 No 💿 **Hydric Soil Present?** Depth (inches): Remarks:

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

Project/Site: Telesto Solar Project	City/County: Cecilia/Hard	in Sampling Date: 23-Mar-22
Applicant/Owner: 7x Energy	State:	
Investigator(s): S. Waltman and C. Martin	Section, Township, Range	e: S T R
Landform (hillslope, terrace, etc.):	Local relief (concave, conv	ex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	— _at.: 37.689135	Long.: -85.969293 Datum:
Soil Map Unit Name: Lawrence silt loam (0 to 2 percent slopes rare	y flooded)	NWI classification: PEM
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes   No (I	f no, explain in Remarks.)
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🗌 signif	icantly disturbed? Are "No	rmal Circumstances" present? Yes 💿 No 🔾
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 natur	ally problematic? (If need	led, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	ng sampling point locat	cions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ● No ○		
Hydric Soil Present? Yes   No	Is the Sampled Ar	
Wetland Hydrology Present? Yes ● No ○	within a Wetland?	163 - 160 -
Thirdralogy.		
Hydrology		
Wetland Hydrology Indicators:	also)	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apple of Surface Water (A1)		Surface Soil Cracks (B6)
	Plants (B14)  Ifide Odor (C1)	Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)
	cospheres along Living Roots (C3)	Moss Trim Lines (B16)
	Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	ırface (C7)	Saturation Visible on Aerial Imagery (C9)
	n in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
	es):1	
Water Table Present? Yes O No O Depth (inch	es):	
Saturation Present?	Wetland	Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitoring well, aerial)		available:
	., , , , , , , , , , , , , , , , , , ,	
Remarks:		

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

		-Species? -		Sampling Point: <u>DP-050</u>
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Cover	Status	
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC: (A)
2	0	0.0%		<b></b>
3		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata: 3 (B)
4				Demonstration and Consider
5	0	0.0%		Percent of dominant Species That Are OBL_FACW, or FAC:66.7%(A/B)
6	_	0.0%		That Are OBL, FACW, or FAC: 66.7% (A/B)
		0.0%		Dravalanca Inday workshoot.
7				Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0	= Total Cover		OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:)				FACW species 0 x 2 = 0
1	0	0.0%		I
2	_	0.0%		FAC species <u>110</u> x 3 = <u>330</u>
				FACU speci es 0 x 4 = 0
3.	0	0.0%		
4	0	0.0%		· ·
5	0	0.0%		Column Totals: 120 (A) 380 (B)
		0.0%		
6				Prevalence Index = B/A = 3.167
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0	0.0%		
		0.0%		Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 ¹
_Shrub Stratum_ (Plot size:)		= Total Cover		
		100.004		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1. Rosa bracteata	10	100.0%	UPL	l <u> </u>
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
				be present, unless disturbed or problematic.
4	0			
5	0	0.0%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
				Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		0.0%		(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size:)	10	= Total Cover		of height.
	100	<b>1</b> 00.0%	EAC	Sapling/shrub stratum – Consists of woody plants, excluding
1. Setaria pumila			FAC	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.
	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		$\neg$		in height.
5	0	0.0%		
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		
	_	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
11	0	0.0%		than 3 in. (7.6 cm) DBH.
				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		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,
	10	<b>1</b> 00.0%	FAC	including herbaceous vines, regardless of size, and woody
1. Campsis radicans	- 10	100.0%	FAC	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
	0	0.0%		height.
4				
5	0	0.0%		Hydrophytic
6.	0	0.0%		Vegetation
·				Present? Yes • No
	10	= Total Cover		
Remarks: (Include photo numbers here or on a separate shee	et.)	_	_	
,, and an analysis of the same and an analysis o	•			

Soil Sampling Point: DP-050

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or cor	nfirm the a	absence of indicators.)			
Depth	Matrix			dox Featu	res					
(inches)	Color (moist)		Color (moist)	%_	Tvpe	Loc2	Texture	Remarks		
0-20	10YR 5/2	<u>95</u> —	10YR 4/6	5	RM	PL	Silty Clay			
				-						
				-						
<sup>1</sup> Type: C=Cond	centration. D=Depletion	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	ed Sand Grai	ns <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	ntrix		
Hydric Soil II	ndicators:						Indicators for Proble	matia Hydria Saila <sup>3</sup> .		
Histosol (A			Dark Surface (	S7)						
Histic Epip			Polyvalue Belov	v Surface (	(S8) (MLRA	147,148)	2 cm Muck (A10)			
Black Histi			Thin Dark Surfa				Coast Prairie Redo (MLRA 147,148)	x (A16)		
	Sulfide (A4)		Loamy Gleyed					. 0 1 (510)		
Stratified L	_ayers (A5)		✓ Depleted Matrix				Piedmont Floodpla (MLRA 136, 147)	ain Soils (F19)		
2 cm Muck	(A10) (LRR N)		Redox Dark Su				Very Shallow Dark	Surface (TF12)		
Depleted E	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F			
	Surface (A12)	,	Redox Depress	ions (F8)			Other (Explain in )	verriar k3)		
	ck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	e Masses (	(F12) (LRR N	1,				
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)				
Sandy Red			☐ Piedmont Floor				<sup>3</sup> Indicators of h	nydrophytic vegetation and		
Stripped M			Red Parent Ma				wetland hyd unless dis	rology must be present, turbed or problematic.		
	()				(	, ,	u.ness u.s	tarboa or problematio.		
Restrictive La	yer (if observed):									
Type:								Yes ● No ○		
Depth (inch	nes):						Hydric Soil Present?	Yes ● No ○		
Remarks:										

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

Project/Site: Telesto Solar Project		Ci	ty/County:	Cecilia/Hardin	Sampling Date: 23-Mar-22
Applicant/Owner: 7x Energy				State: KY	Sampling Point: DP-051
Investigator(s): S. Waltman and C.	Martin	S	ection, Towr	ship, Range: S	TR
Landform (hillslope, terrace, etc.):		Loc	cal relief (cor	ncave, convex, r	none): Slope:0.0_ % /0.0 °
Subregion (LRR or MLRA):		 Lat.: 37	.689097	Lor	ng.: -85,969322 Datum:
Soil Map Unit Name: Lawrence silt	loam (0 to 2 per				NWI classification: N/A
Are climatic/hydrologic conditions o	n the site typic	cal for this time of year?	Yes 💿	No O (If no	, explain in Remarks.)
Are Vegetation, Soil	, or Hydrolog			Are "Normal	I Circumstances" present? Yes ● No ○
Are Vegetation  , Soil	, or Hydrolog	gy   naturally prob	lematic?		explain any answers in Remarks.)
Summary of Findings - Af	ttach site r	nap showing san	npling po		ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿			
Hydric Soil Present?	Yes O	No 💿	Is the	Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O	No 💿	within	a Wetland?	res U NO U
Remarks:					
Hydrology					
Wetland Hydrology Indicators:					_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of o	ne required; cl				Surface Soil Cracks (B6)
Surface Water (A1)		True Aquatic Plants (B1			Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odor	• •		Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizospheres		coots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced I		(0.1)	Dry Season Water Table (C2)
Sediment Deposits (B2)  Drift deposits (B3)		Recent Iron Reduction		(C6)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)	•		Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Other (Explain in Rema	arks)		Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Image	ry (R7)				Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Ty (D7)				Microtopographic Relief (D4)
Aquatic Fauna (B13)					FAC-neutral Test (D5)
Field Observations:					TAC-neutral rest (D3)
Surface Water Present? Yes	O No ●	Depth (inches):			
Water Table Present? Yes	O No ●	Depth (inches):			
Saturation Present?  (includes capillary frings)  Yes	No ●	Depth (inches):		Wetland Hydi	rology Present? Yes O No •
(includes capillary fringe)  Describe Recorded Data (stream g		ng well, aerial photos, p	previous insp	ections), if avai	lable:
			·	•	
Remarks:					

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

		-Species? -		Sampling Point: <u>DP-051</u>
	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover		Status	Bonniance rest Worksheet.
		0.004		Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:0(A)
2	0	0.0%		<b></b>
3		0.0%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Demonstration and Consider
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	_	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species 0 x 2 = 0
1	0	0.0%		I
2	_	0.0%		FAC species x 3 =
				FACU species $100 \times 4 = 400$
3	0			l '
4	0	0.0%		·
5	0	0.0%		Column Totals: 100 (A) 400 (B)
		0.0%		D   1   1   1   1   1   1   1   1   1
6				Prevalence Index = B/A =
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3		0.0%		1 Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Streets
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
1				(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size:)	0	= Total Cover		of height.
1. Poa pratensis	100	<b>1</b> 00.0%	FACU	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			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%		regardless of size, and all other plants less than 3.26 ft tall.
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
	0	0.0%		in height.
5				
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		
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
				diameter at breast height (DBH).
9				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
12				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	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				Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover		Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil Sampling Point: DP-051

Profile Descri	ption: (Describe to	the depth nee	eded to document	the indic	ator or co	nfirm the a	bsence of indicators.)	
Depth	Matrix			dox Featu				
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-20	10YR 4/4						Silty Clay	
							-	
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduced	Matrix, CS=Covere	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil II	ndicators:						Indicators for Proble	amatic Hydric Soils 3.
Histosol (A	A1)		☐ Dark Surface (	S7)				
Histic Epip			Polyvalue Belov	w Surface (	S8) (MLRA	147,148)	2 cm Muck (A10)	
☐ Black Histi	c (A3)		Thin Dark Surfa	ace (S9) (N	ILRA 147, 1	48)	Coast Prairie Redo (MLRA 147,148)	ox (A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Piedmont Floodpla	nin Caile (F10)
Stratified L	_ayers (A5)		Depleted Matrix	x (F3)			(MLRA 136, 147)	alli Solis (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark	Surface (F7	7)		Other (Explain in I	
	Surface (A12)		Redox Depress	ions (F8)			Other (Explain in )	normanio)
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N	l,	Iron-Manganes MLRA 136)	se Masses (	F12) (LRR I	١,		
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	.RA 136, 12	2)		
Sandy Red			Piedmont Floor	dplain Soils	(F19) (MLF	A 148)	<sup>3</sup> Indicators of h	hydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hyd unless dis	rology must be present, sturbed or problematic.
					•			•
Restrictive La	yer (if observed):							
Type:							Hydric Soil Present?	Yes ○ No •
Depth (inch	nes):						nyunc son Present?	res 😊 No 😊
Remarks:								

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

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Mar-22
Applicant/Owner: 7x Energy		State:	KY Sampling Point: DP-052
Investigator(s): S. Waltman and C. N		Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):		Local relief (concave, convex	, none): Slope: % / °
Subregion (LRR or MLRA):		— Lat.: 37.687692 L	ong.: -85.970916
	am (2 to 6 percent slopes)	37.007072	
·		of year? Yes  No (If n	
Are climatic/hydrologic conditions or		•	no, explain in Remarks.)
Are Vegetation, Soil	, or Hydrology  signif	icantly disturbed? Are "Norm	nal Circumstances" present? Yes Son No
Are Vegetation, Soil	, or Hydrology L natur	ally problematic? (If needed	d, explain any answers in Remarks.)
Summary of Findings - At	tach site map showir	ng sampling point locatio	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No •		
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	103 0 110 0
Remarks:		,	
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; check all that ap	ply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic	Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		ılfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		zospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Reduced Iron (C4)	☐ Dry Season Water Table (C2)
Sediment Deposits (B2)		Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Su	• •	☐ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	U Other (Expla	in in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	(0.7)		Geomorphic Position (D2)
Inundation Visible on Aerial Imager	y (B/)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)  Aquatic Fauna (B13)			Microtopographic Relief (D4)
Field Observations:			FAC-neutral Test (D5)
Surface Water Present? Yes	No O Depth (inch	nes):	
Water Table Present? Yes			
		Wetland Hy	rdrology Present? Yes O No 💿
(includes capillary fringe) Yes	<u> </u>		
Describe Recorded Data (stream ga	auge, monitoring well, aerial p	photos, previous inspections), if av	railable:
Remarks:			
Remarks:			

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

		-Species? -		Sampling Point: <u>DP-052</u>
	Absolute		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%		Total Number of Dominant
		0.0%		Species Across All Strata:1 (B)
4				Demonstration and Consider
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6	_	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%		Drawalanaa Inday warkahaat
7				Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	. 0	= Total Cover		0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:	)			FACW species
1	0	0.0%		
2	_	0.0%		FAC species $0 \times 3 = 0$
				FACU species
3	0			'
4	0	0.0%		1
5	0	0.0%		Column Totals: 100 (A) 500 (B)
6		0.0%		Prevalence Index = B/A = 5.000
7	0	0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		
	_	0.0%		Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cover		
Shrub Stratum (Plot size:)				Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1	0	0.0%		l —
2	0	0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4	0			
5	0	0.0%		Definition of Vegetation Strata:
6.		0.0%		Four Vegetation Strata:
				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.
	100	<b>✓</b> 100.0%	LIDI	Sapling/shrub stratum – Consists of woody plants, excluding
1. Glycine max		100.0%	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,
3	0	0.0%		regardless of size, and all other plants less than 3.28 ft tall.
	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
4		$\neg$		in height.
5	0			
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		
	_	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%		I - · · ·
10		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
	0	0.0%		than 3 in. (7.6 cm) DBH.
11				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
	100	= Total Cover		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
2	0	0.0%		m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
3				height.
4	0			-
5	0	0.0%		
6.	0	0.0%		Hydrophytic Vegetation
U				Present? Yes No •
	0	= Total Cover	· 	
Remarks: (Include photo numbers here or on a separate she	et.)			
	,			

Soil Sampling Point: DP-052

Profile Descri	ption: (Describe to	the depth nee	eded to document	the indic	ator or co	nfirm the a	bsence of indicators.)	
Depth	Matrix			dox Featu				
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-20	10YR 4/4						Silty Clay	
							-	
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Reduced	Matrix, CS=Covere	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=Ma	atrix
Hydric Soil II	ndicators:						Indicators for Proble	amatic Hydric Soils 3.
Histosol (A	<b>A1</b> )		☐ Dark Surface (	S7)				
Histic Epip			Polyvalue Belov	w Surface (	S8) (MLRA	147,148)	2 cm Muck (A10)	
☐ Black Histi	c (A3)		Thin Dark Surfa	ace (S9) (N	ILRA 147, 1	48)	Coast Prairie Redo (MLRA 147,148)	ox (A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Piedmont Floodpla	nin Caile (F10)
Stratified L	_ayers (A5)		Depleted Matrix	x (F3)			(MLRA 136, 147)	alli Solis (F19)
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark	Surface (F7	7)		Other (Explain in I	
	Surface (A12)		Redox Depress	ions (F8)			Other (Explain in )	normanio)
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N	l,	Iron-Manganes MLRA 136)	se Masses (	F12) (LRR I	١,		
	yed Matrix (S4)		Umbric Surface	e (F13) (ML	.RA 136, 12	2)		
Sandy Red			Piedmont Floor	dplain Soils	(F19) (MLF	A 148)	<sup>3</sup> Indicators of h	hydrophytic vegetation and
Stripped M			Red Parent Ma				wetland hyd unless dis	rology must be present, sturbed or problematic.
					•			•
Restrictive La	yer (if observed):							
Type:							Hydric Soil Present?	Yes ○ No •
Depth (inch	nes):						nyunc son Present?	res 😊 No 😊
Remarks:								

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

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Mar-22
Applicant/Owner: 7x Energy		State: K	Y Sampling Point: DP-053
Investigator(s): S. Waltman and C. Mart	iin	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.):		Local relief (concave, convex,	none): Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	Lat.:	37.687684 Lo	ong.: -85.970941 Datum:
	ım (2 to 6 percent slopes)		NWI classification: PSS
Are climatic/hydrologic conditions on the		ar? Yes   No (If no	o, explain in Remarks.)
		•	al Circumstances" present? Yes  No
Are Vegetation . , Soil . , ,	or Hydrology   naturally pi	roblematic? (If needed	, explain any answers in Remarks.)
<b>Summary of Findings - Atta</b>	ch site map showing sa	ampling point locatio	ns, 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?	res 🙂 NO 🔾
Hydrology			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one	required: check all that apply)		Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		✓ Drainage Patterns (B10)
✓ Saturation (A3)	Oxidized Rhizosphe	res along Living Roots (C3)	Moss Trim Lines (B16)
☐ Water Marks (B1)	Presence of Reduce	ed Iron (C4)	☐ Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduct	ion 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 Re	emarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	2=1		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (I	3/)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)  Aquatic Fauna (B13)			
Field Observations:			FAC-Heutral Test (D5)
Surface Water Present? Yes	No   Depth (inches):		
Water Table Present? Yes •	No Depth (inches):	1	
Saturation Present?  (includes consillers frings)  Yes		Wetland Hyd	drology Present? Yes   No
(Includes capillally Inflige)	• • • • • • • • • • • • • • • • • • • •		elekt.
Describe Recorded Data (stream gaug	e, monitoring well, aerial photos	s, previous inspections), if ava	aliadie:
Remarks:			
iverial ks.			

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

		-Species? -		Sampling Point: <u>DP-053</u>
	Absolute		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%		<b></b>
3		0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
		0.0%		Species Across All Strata: 2 (B)
4				Demont of deminent Charles
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC:100.0%(A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
		0.0%		Prevalence Index worksheet:
7				
8	0	0.0%		Total % Cover of: Multiply by:
(5)	0	= Total Cover		0BL speci es0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:		_		FACW species 20 x 2 = 40
1	0	0.0%		I
2	_	0.0%		FAC species x 3 =
		0.0%		FACU speci es
3				l ·
4	0	0.0%		· ·
5	0	0.0%		Column Totals: <u>30</u> (A) <u>70</u> (B)
		0.0%		D   1   1   1   1   1   1   1   1   1
6		$\neg$		Prevalence Index = B/A =
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0_	0.0%		Rapid Test for Hydrophytic Vegetation
9	_	0.0%		
~ .				✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
_Shrub Stratum_ (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
	0	0.0%	UPL	data in Remarks or on a separate sheet)
1. Rosa bracteata			UPL	l <u> </u>
2	0	0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0	0.0%		1 Indicators of hydric soil and wetland hydrology must
		0.0%		be present, unless disturbed or problematic.
4				Definition of Vegetation Streets
5	0			Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
				(7.6 cm) or more in diameter at breast height (DBH), regardless
_Herb Stratum_ (Plot size:)	0	= Total Cover		of height.
1. Juncus effusus	20	<b>✓</b> 66.7%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
			FAC	, ,
2. Xanthium strumarium	10		FAC	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%		regardless of size, and all other plants less than 5.20 it 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			Five Vegetation Strata:
7	0	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
		0.0%		diameter at breast height (DBH).
9		$\neg$		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
12				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,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
•				species, except woody vines, less than approximately 3 ft (1
2	0			m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5				Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover		Present? Yes No
Remarks: (Include photo numbers here or on a separate shee	et.)			

Soil Sampling Point: DP-053

Profile Descr	iption: (Describe to	the depth n	eeded to document	the indic	ator or co	nfirm the a	absence of indicators.)			
Depth	<u>Matrix</u>			dox Featu	1					
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	<u>Texture</u>	Remarks		
0-20	10YR 5/2	95	10YR 4/6		RM	M	Silty Clay			
			- -							
	-		·							
<sup>1</sup> Type: C=Cond	centration. D=Depletio	n. RM=Redu	ced Matrix, CS=Covere	ed or Coate	d Sand Gra	ins <sup>2</sup> Loca	tion: PL=Pore Lining. M=M	atrix		
Hydric Soil I	ndicators:						Indicators for Droble	ematic Hydric Soils 3:		
Histosol (/			Dark Surface (	S7)						
	pedon (A2)		Polyvalue Belov	•	S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)		
Black Hist			Thin Dark Surfa				Coast Prairie Redo	ox (A16)		
	Sulfide (A4)		Loamy Gleyed			,	(MLRA 147,148)			
_	Layers (A5)		✓ Depleted Matrix				Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)		
	k (A10) (LRR N)		Redox Dark Su				Very Shallow Dark	k Surface (TE12)		
	Below Dark Surface (A	11)	Depleted Dark		7)		Other (Explain in			
	k Surface (A12)	,	Redox Depress				Uther (Explain in	Remarks)		
Sandy Mu	ck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	e Masses (	F12) (LRR I	N,				
MLRA 147	y, 148) eyed Matrix (S4)		Umbric Surface	(F13) (ML	.RA 136, 12	2)				
Sandy Red			Piedmont Floor				<sup>3</sup> Indicators of	hydrophytic vegetation and		
	Matrix (S6)		Red Parent Ma					drology must be present, sturbed or problematic.		
	ayer (if observed):									
Type:							Hydric Soil Present?	Yes ● No ○		
Depth (incl	hes):						Trydric Son Tresent.	162 0 140 0		
Remarks:										
I										
ı										
1										

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

Project/Site: Telesto Solar Project		City/County: Cecilia/Hardin	Sampling Date: 23-Mar-22			
Applicant/Owner: 7x Energy		State: KY	Sampling Point: DP-054			
Investigator(s): S. Waltman and C.	Martin	Section, Township, Range: S	T R			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, no	one): Slope: 0.0 % / 0.0 °			
Subregion (LRR or MLRA):	lat:	37.686783 Long	g.: -85.97609 Datum:			
	silt loam (0 to 2 percent slopes rarely fl		NWI classification: PFO			
·		0 0				
Are climatic/hydrologic conditions o		•	explain in Remarks.) Circumstances" present? Yes  No			
Are Vegetation, Soil		y disturbed? Are "Normal	Circumstances" present? Yes Wind			
Are Vegetation, Soil	, or Hydrology naturally p	roblematic? (If needed, e	xplain any answers in Remarks.)			
Summary of Findings - A	<u> </u>	ampling point location	s, 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?	103 0 110 0			
Remarks:		•				
Hydrology						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of o	ne required; check all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants	s (B14)	Sparsely Vegetated Concave Surface (B8)			
✓ High Water Table (A2)	Hydrogen Sulfide C	Odor (C1)	Drainage Patterns (B10)			
Saturation (A3)	Oxidized Rhizosphe	eres along Living Roots (C3)	Moss Trim Lines (B16)			
Water Marks (B1)	Presence of Reduce	ed Iron (C4)	Dry Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduc	tion 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 R	emarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5) Inundation Visible on Aerial Image	.m. (D7)		Geomorphic Position (D2)			
✓ Water-Stained Leaves (B9)	ry (B7)		Shallow Aquitard (D3)			
Aquatic Fauna (B13)			☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes	No      Depth (inches):	3				
Water Table Present? Yes	No O Depth (inches):	 1				
Saturation Present?  (includes capillary frings)  Yes		Wetland Hydro	ology Present? Yes   No			
(Includes capillally Innige)		1				
Describe Recorded Data (stream g	pauge, monitoring well, aerial photo	s, previous inspections), if availa	able:			
Domarks:						
Remarks:						
l e e e e e e e e e e e e e e e e e e e			<u> </u>			

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

	Dominant			Sampling Point: DP-054	
	Absolute % Cover	itonotiut.	Indicator Status	Dominance Test worksheet:	
1 Liquidambar styraciflua	30	75.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: (A)	
2. Acer rubrum	10	<b>✓</b> 25.0%	FAC	T. IN I SECOND	
3	0	0.0%		Total Number of Dominant Species Across All Strata: (B)	
4		0.0%			
5	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
6	0			That Are Obe, FACW, or FAC.	
7	0			Prevalence Index worksheet:	
8	0	0.0%		Total % Cover of: Multiply by:	
Sapling-Sapling/Shrub Stratum (Plot size:)	40	= Total Cove	r	0BL speci es x 1 =0	
1	_	0.0%		FACW species x 2 = 0	
2		0.0%		FAC speci es <u>40</u> x 3 = <u>120</u>	
3		0.0%		FACU speci es x 4 =0	
4		0.0%		UPL speci es $0 \times 5 = 0$	
5		0.0%		Column Totals: <u>40</u> (A) <u>120</u> (B)	
6		0.0%		Prevalence Index = B/A = 3.000	
7	-	0.0%			
8		0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation	
9		0.0%		✓ Dominance Test is > 50%	
10		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>	
Shrub Stratum (Plot size:)		= Total Cove	r	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%		Four Vegetation Strata:	
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.	
		= Total Cove		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
Herb Stratum (Plot size:)		D 0.09/		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%		Herb 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 in height.	
3	0	0.0%			
4	0	0.0%			
5	0	0.0%			
6		0.0%		Five Vegetation Strata:  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).	
7		0.0%			
8	0	0.0%			
9		0.0%		Sapling stratum – Consists of woody plants, excluding woody	
10 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	
	0	= Total Cove	r	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, including herbaceous vines, regardless of size, and woody	
1				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 height.	
4		0.0%			
5		0.0%		Hydrophytic	
6				Vegetation Present? Yes ● No ○	
	0	= Total Cove	er .		
Remarks: (Include photo numbers here or on a separate shee	et.)				

Soil Sampling Point: DP-054

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc2	Texture	Remarks	
0-20	10YR 5/2	95	10YR 4/6	5	RM	M	Silty Clay		
			-						
				-					
				-	-		-		
<sup>1</sup> Type: C=Cond	centration. D=Depletion	n. RM=Reduce	ed Matrix, CS=Covere	d or Coate	d Sand Gra	ins <sup>2</sup> Locat	tion: PL=Pore Lining. M=Matr	ix	
Hydric Soil I	ndicators:						Indicators for Problem	estic Undric Cailo 3.	
Histosol (A			Dark Surface (S	57)					
Histic Epip	•		Polyvalue Below	•	S8) (MLRA	147,148)	2 cm Muck (A10) (N		
Black Histi			☐ Thin Dark Surfa				Coast Prairie Redox	(A16)	
	Sulfide (A4)		Loamy Gleyed N			,	(MLRA 147,148)		
	Layers (A5)		✓ Depleted Matrix				Piedmont Floodplain (MLRA 136, 147)	i Soils (F19)	
	(A10) (LRR N)		Redox Dark Sur				Very Shallow Dark S	jurface (TF12)	
	Below Dark Surface (A	11)	Depleted Dark S	Surface (F7	')		Other (Explain in Re		
	Surface (A12)	,	Redox Depressi	ons (F8)			Other (Explain in Re	illalıks)	
	ck Mineral (S1) (LRR N	l.	☐ Iron-Manganese	Masses (	F12) (LRR N	١,			
MLRA 147	, 148)	•	MLRA 136)						
Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)	3	to the second second	
Sandy Red	dox (S5)		Piedmont Flood	plain Soils	(F19) (MLR	2A 148)	Indicators of hywetland hydro	drophytic vegetation and logy must be present,	
Stripped N	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 127	', 147)		rbed or problematic.	
Pestrictive I	ayer (if observed):								
Type:	iyer (ii observed).								
Depth (inch							Hydric Soil Present?	Yes   No	
•	103).								
Remarks:									

Telesto Solar Farm Critical Analysis Report

**APPENDIX** 

B

PHOTOGRAPHIC LOG



Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 1

Date: 2-23-2021

**Coordinates:** 

37.681352, -85.954258

**Photo Direction:** Southwest

**Description:** 

Data Point 3 – Forested Wetland (Wet-1)





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State:

Project No. E319302605

Photo No. 2

Date: 2-23-2021

**Coordinates:** 

37.678839, -85.957801

**Photo Direction:** 

South

**Description:** 

Data Point 5 – Forested Wetland (Wet-2)





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 3

Date: 2-24-2021

**Coordinates:** 

37.68266, -85.964446

**Photo Direction:** South

**Description:** 

Data Point 6 – Forested Wetland (Wet-3)





### PHOTOGRAPHIC LOG

Project No. E319302605

Property Name: Telesto Solar Project

Photo No. Date:

2-23-2021

**Coordinates:** 

4

37.683288, -85.959452

**Photo Direction:** Northeast

**Description:** 

Data Point 8, Emergent Wetland (Wet-4).







Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 5

Date: 2-23-2021

**Coordinates:** 37.683914, -85.960021

**Photo Direction:** South

**Description:** 

Data Point 11, Forested Wetland (Wet-5).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State: Cecilia/Hardin County, Kentucky Project No. E319302605

Photo No. Date: 6 2-23-2021

**Coordinates:** 

37.685288, -85.959545

**Photo Direction:** 

South

**Description:** 

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





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 7

Date: 2-23-2021

**Coordinates:** 

37.686618, -85.961265

**Photo Direction:** Northeast

**Description:** 

Data Point 16, Forested Wetland (Wet-7).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State: Cecilia/Hardin County, Kentucky **Project No.** E319302605

Photo No. Date: 8 2-23-2021

**Coordinates:** 37.68721, -85.961538

**Photo Direction:** 

South

**Description:** 

Data Point 18, Scrub Shrub Wetland (Wet-8).





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 9

Date: 2-23-2021

**Coordinates:** 

37.689086, -85.961002

**Photo Direction:** Southeast

**Description:** 

Data Point 21, Forested Wetland (Wet-9).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

Date:

Photo No. 10 2-23-2021

**Coordinates:** 37.68899, -85.96004

Photo Direction: Northwest

**Description:** 

Freshwater Pond (Wet-10).





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 11

Date: 2-23-2021

**Coordinates:** 

37.690694, -85.957899

**Photo Direction:** Southwest

**Description:** 

Freshwater Pond (Wet-11).





### PHOTOGRAPHIC LOG

Project No. E319302605

Property Name: Telesto Solar Project

Photo No. Date: 12 2-23-2021

**Coordinates:** 37.675579, -85.970906

**Photo Direction:** West

**Description:** 

Data Point 24, Forested Wetland (Wet-12).

County/State: Cecilia/Hardin County, Kentucky





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 13

Date: 2-23-2021

**Coordinates:** 

37.677475, -85.971256

**Photo Direction:** 

East

**Description:** 

Data Point 26, Forested Wetland (Wet-13).





#### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 14

Date: 2-23-2021

**Coordinates:** 

37.682735, -85.971405

**Photo Direction:** 

Southwest

**Description:** 

Data Point 30, Forested Wetland (Wet-15).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 15

Date: 2-24-2021

**Coordinates:** 

37.690701, -85.937321

**Photo Direction:** Northeast

**Description:** 

Data Point 35, Scrubshrub Wetland (Wet-16).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State: Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 16

Date: 2-24-2021

**Coordinates:** 

37.692828, -85.950107

**Photo Direction:** 

Northwest

**Description:** 

Data Point 45, Emergent Wetland (Wet-17).





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. **17** 

Date: 2-24-2021

**Coordinates:** 

37.691292, -85.952188

**Photo Direction:** Southeast

**Description:** 

Data Point 47, Emergent Wetland (Wet-18).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State: Cecilia/Hardin County, Kentucky Project No. E319302605

Photo No. 18

Date: 2-24-2021

**Coordinates:** 

37.688603, -85.936407

**Photo Direction:** 

West

**Description:** 

Freshwater Pond (Wet-19).





Property Name: Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 19

Date: 2-24-2021

**Coordinates:** 

37.685149, -85.949795

**Photo Direction:** N/A

Description:

Freshwater Pond (Wet-20).





### PHOTOGRAPHIC LOG

Property Name: Telesto Solar Project

County/State: Cecilia/Hardin County, Kentucky Project No. E319302605

Photo No. Date: 20

2-24-2021

**Coordinates:** 

37.688014, -85.941912

Photo Direction: N/A

**Description:** 

Freshwater Pond (Wet-21).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

21

**Date:** 3-23-2022

Coordinates:

37.689135, -85.969293

**Photo Direction:** 

Ν

Description:

Datapoint 50, Emergent Wetland (Wet-26).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 22

**Date:** 3-23-2022

Coordinates:

37.687684, -85.970941

**Photo Direction:** 

SW

Description:

Datapoint 53, Scrub Shrub Wetland (Wet-27).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

23

Date: 3-23-2022

Coordinates:

37.686783, -85.97609

Photo Direction:

NW

**Description:** 

Datapoint 54, Forested Wetland (Wet-28).





### PHOTOGRAPHIC LOG

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 24

Date: 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Perennial Stream (S-1).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

25

Date: 2-23-2021

Coordinates:

N/A

Photo Direction:

N/A

Description:

Ephemeral Stream (S-2).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 26

Date: 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Swale (S-3).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 27

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Perennial Stream (S-4).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-5).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 29

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-6).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 30

**Date:** 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-7).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

31

Date: 2-23-2021

Coordinates:

N/A

Photo Direction:

N/A

**Description:** 

Ephemeral Stream (S-8).





#### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 32

Date:

2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-9).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

33

Date: 2-23-2021

Coordinates:

N/A

Photo Direction:

N/A

**Description:** 

Perennial Stream (S-10).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 34

Date:

2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-11).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

35

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

**Description:** 

Ephemeral Stream (S-12).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

**Date:** 2-23-2021

**Coordinates:** 

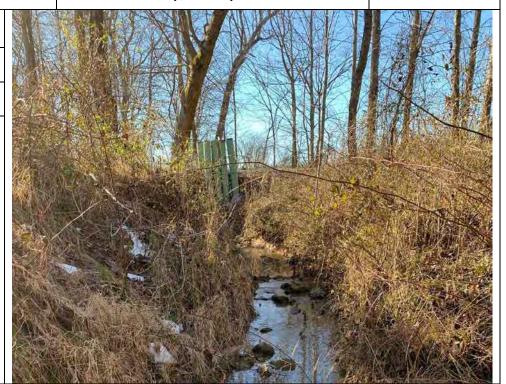
N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-13)





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

37

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

West Rhudes Creek Perennial Stream (S-14).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 38

**Date:** 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-15).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

39

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-16).





### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 40

**Date:** 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-18).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

41

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-19).





PHOTOGRAPHIC LOG

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 42

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-20).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No.

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-21).





#### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No.

Date:

**44** 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Swale (S-22).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 45

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

**Description:** 

Ephemeral Swale (S-23).





Date:

2-23-2021

#### **PHOTOGRAPHIC LOG**

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 46

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-24).





**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 47

**Date:** 2-23-2021

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-25).





### PHOTOGRAPHIC LOG

**Property Name:** 

Telesto Solar Project

County/State:

Cecilia/Hardin County, Kentucky

Project No. E319302605

Photo No. 48

**Date:** 2-23-2021

**Coordinates:** 

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-26).





Property Name: Telesto Solar Project County/State:

Cecilia/Hardin County, Kentucky

**Project No.** E319302605

Photo No. 49

**Date:** 3-23-2022

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-27).





#### **PHOTOGRAPHIC LOG**

Property Name: Telesto Solar Project County/State:

Project No. E319302605

Photo No. Date: 3-23-2022

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Ephemeral Stream (S-28).





Property Name: Telesto Solar Project County/State: Cecilia/Hardin County, Kentucky **Project No.** E319302605

Photo No. 51

**Date:** 3-23-2022

Coordinates:

N/A

**Photo Direction:** 

N/A

Description:

Intermittent Stream (S-29).

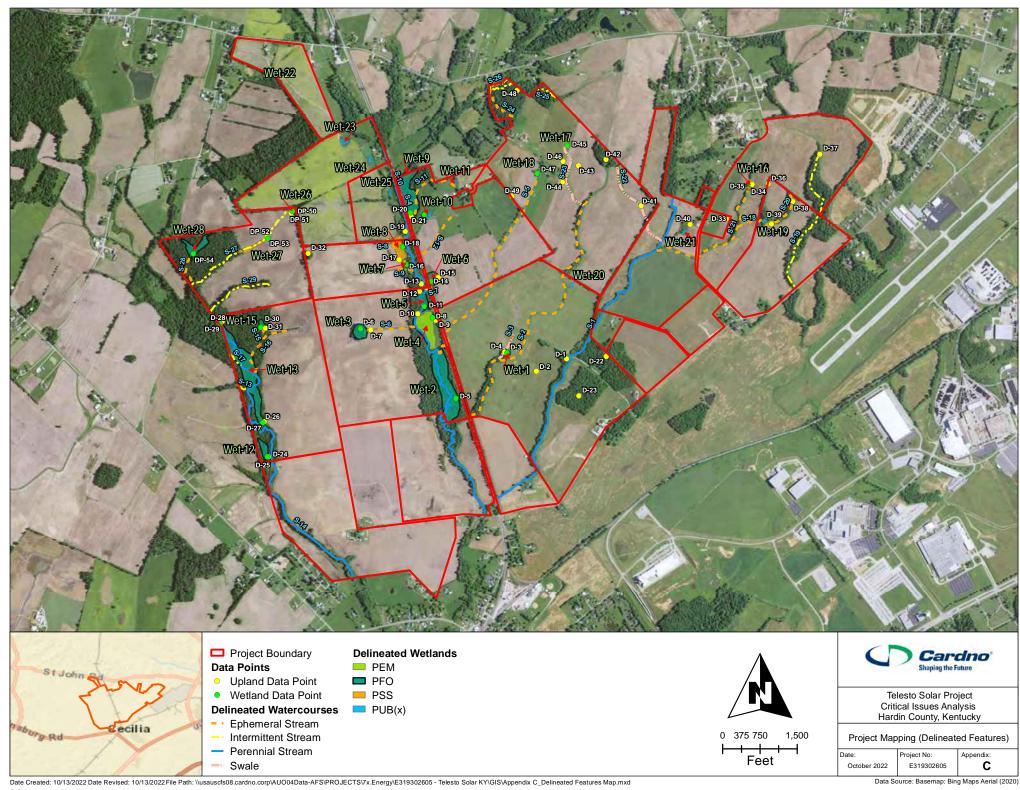


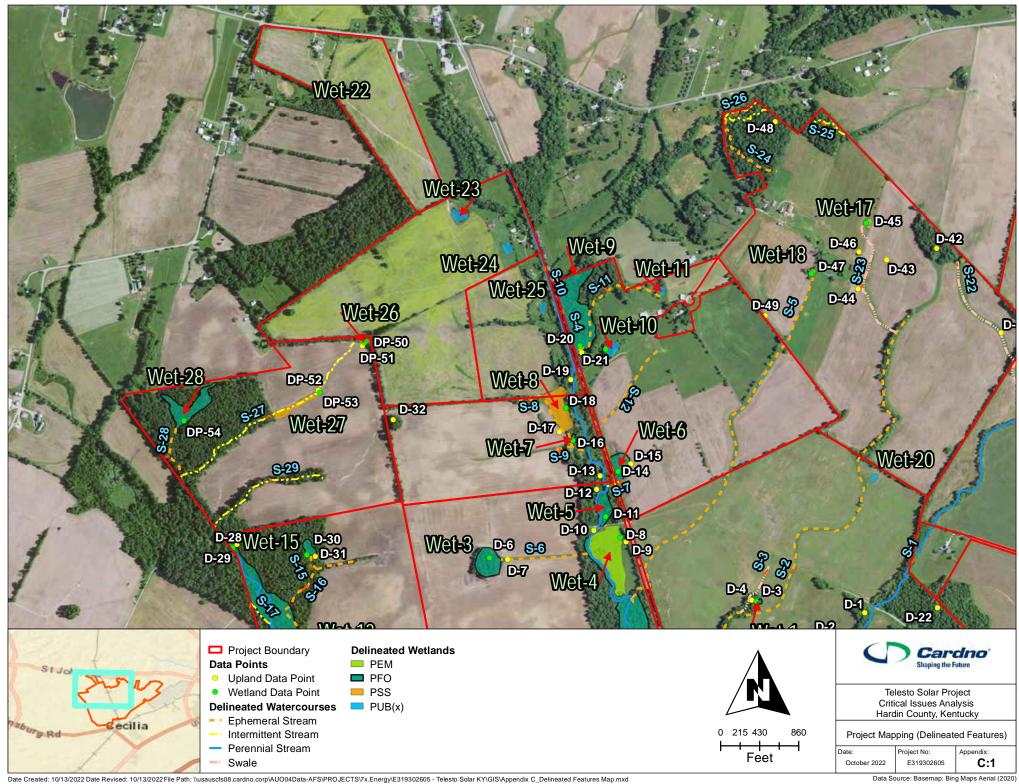
Telesto Solar Farm Critical Analysis Report

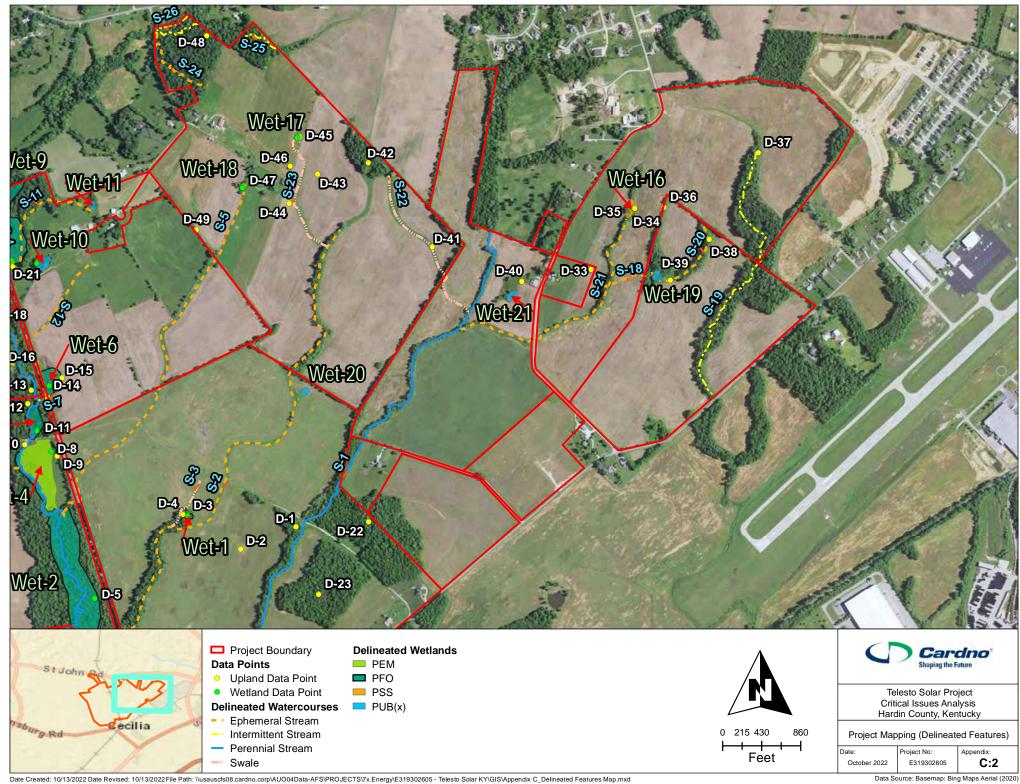
**APPENDIX** 

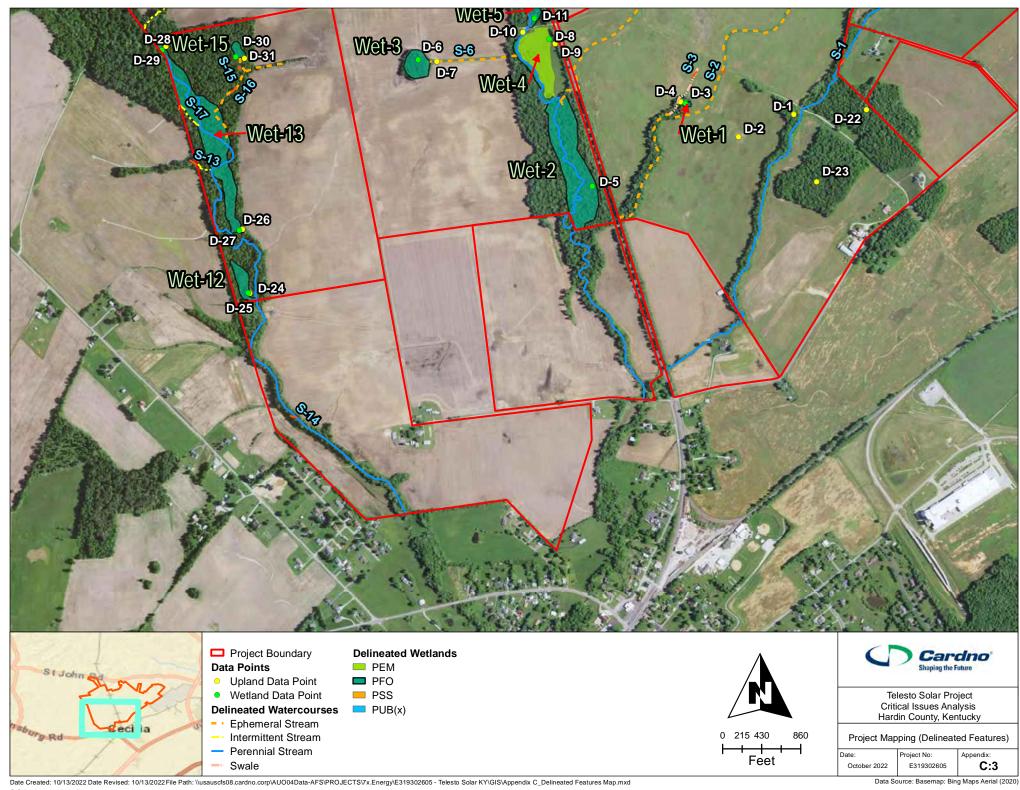
C

PROJECT MAPPING









Telesto Solar Farm Critical Analysis Report

**APPENDIX** 

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:  Stream is at least intermittent 35.5: Perennial if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 1 e.g. Quad Name:

ivaine.
te Strong
3
3
3
3
3
3
3
3
1.5
1.5
Yes = 3
3
3
0
1.5
1.5
Yes = 3
0
0
3
3
1.5
1.5
1.5
1.5
er = 0

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:  Stream is at least intermittent: 17.25: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 2 e.g. Quad Name:

A. Geomorphology (Subtotal = 10 )  1a. Continuity of channel bed and bank				
1a. Continuity of channel bed and bank	Absent	Weak	Moderate	Strong
	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
B. 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
3. Headcuts	0	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	No	<b>0</b> = <b>0</b>	Yes :	= 3
artificial ditches are not rated.				
B. Hydrology (Subtotal = <u>4</u> )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
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	<u> = 0</u>	Yes :	= 3
C. Biology (Subtotal = 3.25)	1	1		
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; OB	L = 1.5 Other = 0	
•	l	·		
Notes:				
		77.007 - 0.10, 02		

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:  Stream is at least intermittent 8.75: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 3 e.g. Quad Name:

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Weak  1  1  1  1  1  1  1	Moderate 2 2 2 2 2 2 2	<b>Strong</b> 3 3 3 3
0 0 0 0 0	1 1 1 1	2 2 2 2	3 3 3 3
0 0 0 0	1 1 1 1	2 2 2	3 3 3
0 0 0 0	1 1 1	2	3
0 0 0	1 1	2	3
0	1		
0		2	
<u> </u>	1		3
0	I	2	3
i <mark>-</mark>	1	2	3
0	1	2	3
0	0.5	1	1.5
0	<mark>0.5</mark>	1	1.5
No	= 0	Yes =	= 3
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	= 3
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
_	FACW = 0.75; OB	L = 1.5 Other = 0	
	0 No	0	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:  Stream is at least intermittent 33.75: Perennial if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 4 e.g. Quad Name:

Absent	Weak	Moderate	Strong
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
No	0 = 0	Yes:	= 3
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	0 = 0	Yes:	= 3
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         No = 0       Yes

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:  Stream is at least intermittent 11.75: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 5 e.g. Quad Name:

A. Geomorphology (Subtotal = 6 )	Absent	Weak	Moderate	Strong
1a. 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		2	3
ripple-pool sequence				
Particle size of stream substrate	0	<u>1</u>	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	<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	<u>= 0</u>	Yes:	= 3
<sup>a</sup> artificial ditches are not rated.				
B. Hydrology (Subtotal = 3_)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	<u>_</u>	2	3
14. Leaf litter	1.5	1	0.5	0
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?		= 0	Yes	
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	0	0.5	1	1.5
•			<b>+</b>	1.5
	_		1	1.5
Š			OBI = 1.5 Other = 0	1.0
<ul><li>24. Amphibians</li><li>25. Algae</li><li>26. Wetland plants in streambed</li></ul>	0	F/	0.5 $0.5$ $ACW = 0.75$ ;	
too:				
Notes:				
Sketch:				
CROIOII.				

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:  Stream is at least intermittent 6: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 6 e.g. Quad Name:

0 0 0 0	Weak 1 1	Moderate	Strong
0 0	1		July
0		9	3
_		2 2	3
0			
	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	<mark>0.5</mark>	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	= 3
		1	
0	1	2	3
0	1	2	3
1.5	1	<mark>0.5</mark>	0
0	0.5	1	1.5
0	0.5	1	1.5
No	<u> </u>	Yes =	= 3
		1	
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	0 0 0 0 0 0 0 0 1.5 0 0 0 No	0 1 0 1 0 1 0 0 1 0 0 1 0 0.5 0 0.5 0 0.5 No = 0   0 1 0 1 1.5 1 0 0.5 0 0.5 No = 0   No = 0  1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0       1       2         0       1       2         0       1       2         0       0.5       1         0       0.5       1         0       1       2         0       1       2         1.5       1       0.5         0       0.5       1         0       0.5       1         No = 0       Yes =         3       2       1         0       1       2         0       1       2         0       1       2         0       1       2         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1

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:  Stream is at least intermittent 19.25: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 7 e.g. Quad Name:

Absort	Wools	Moderate	Ctrong
		_	Strong
			3
0	1		3
0	1	<mark>2</mark>	3
0	1	2	3
			3
			3
0	1		3
0	<mark>1</mark>		3
0	0.5		1.5
0			1.5
No			
0	1	2	3
0	<u>_</u> 1	2	3
1.5	1		0
			1.5
0		<u> </u>	1.5
No			
<b>'</b>			
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
•			
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       1       2         0       1       2         0       1       2         0       1       2         0       1       2         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1         0       0.5       1

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:  Stream is at least intermittent 10.5: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 8 e.g. Quad Name:

			l .	
A. Geomorphology (Subtotal = 6 )	Absent	Weak	Moderate	Strong
1ª Continuity of channel bed and bank	0	1	2	3
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	<mark>0</mark>	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
a artificial ditches are not rated.				
B. Hydrology (Subtotal = 2.5)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
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	<b>0</b> = 0	Yes:	= 3
C. Biology (Subtotal = 2 )		<u> </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
25. Algae	0	0.5	1	1.5
		FACW = 0.75; OE	BL = 1.5 Other = 0	
26. Wetland plants in streambed		, -		
26. Wetland plants in streambed				
26. Wetland plants in streambed  Notes:				

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:  Stream is at least intermittent 7.5: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 9 e.g. Quad Name:

Absent 0 0 0 0 0 0	Weak  1 1 1	Moderate 2 2 2 2 2	<b>Strong</b> 3 3 3
0 0 0 0	1 1 1	2 2 2	3 3 3
0 0 0 0 0	1 1	2 2	3
0 0	1	2	3
0	1		
0		2	
			3
<del>_</del>	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
No	<u> </u>	Yes =	= 3
		•	
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	<u> = 0</u>	Yes =	= 3
		•	
3	2	<mark>1</mark>	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	0 0 0 0 1.5 0 0 0 1.5 0 0 0	0 1 0 0.5 0 0.5 No = 0	0 1 2 1 Yes =   0 1 2 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1

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:  Stream is at least intermittent 30.75: Perennial if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 10 e.g. Quad Name:

if ≥ 19 or perennial if ≥ 30*	Epitemerai inte	rmittent <mark>Perenniai</mark>	e.g. Quad Name	
A. Geomorphology (Subtotal = 17 )	Absent	Weak	Moderate	Strong
1ª. Continuity of channel bed and bank	0	1	2	3
Sinuosity of channel along thalweg	0	1	<u>2</u>	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	<mark>2</mark>	3
7. Recent alluvial deposits	0	1	<mark>2</mark>	3
8. Headcuts	0	1	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	0 = 0	Yes	<mark>= 3</mark>
<sup>a</sup> artificial ditches are not rated.				
B. Hydrology (Subtotal = 7_)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
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 = 0	Yes	<del>=</del> 3
C. Biology (Subtotal = 6.75)				
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; OB	L = 1.5 Other = 0	
	<b>,</b>	•		
Notes:				
Sketch:				

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:  Stream is at least intermittent 7.25: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 11 e.g. Quad Name:

if ≥ 19 or perennial if ≥ 30*	<u> </u>	ermittent Perenniai	e.g. Quad Name:	•
A. Geomorphology (Subtotal = 2.5 )	Absent	Weak	Moderate	Strong
1ª Continuity of channel bed and bank	0	1	2	3
Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool,		_		
ripple-pool sequence	<mark>0</mark>	1	2	3
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	<mark>0.5</mark>	1	1.5
11. Second or greater order channel	No	o = 0	Yes:	= 3
<sup>a</sup> artificial ditches are not rated.		<u>.</u>		
B. Hydrology (Subtotal = 2 )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	<mark>1.5</mark>
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No	O = 0	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	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; O	BL = 1.5 Other = 0	•
·	l .			
Notes:				
Sketch:				

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:  Stream is at least intermittent 5.5: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 12 e.g. Quad Name:

Absent 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Weak  1  1  1  1  1	Moderate  2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3
0 0 0 0 0 0	1 1 1 1 1	2 2 2 2 2 2	3 3 3 3
0 0 0 0 0	1 1 1 1	2 2 2 2 2	3 3 3
0 0 0 0 0	1 1 1 1	2 2 2	3
0 0 0 0	1 1 1	2 2	3
0 0 0	1 1	2	
0	1		3
0		2	
		2	3
<u>_</u>	1	2	3
U	1	2	3
0	0.5	1	1.5
0	<mark>0.5</mark>	1	1.5
No	<mark>= 0</mark>	Yes =	= 3
0	1	2	3
0	1	2	3
1.5	1	<mark>0.5</mark>	0
0	<mark>0.5</mark>	1	1.5
0	0.5	1	1.5
No	<u> </u>	Yes =	= 3
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75:	OBL = 1.5 Other = 0	
	0 0 1.5 0 0 No 3 3 3 0 0 0	No = 0    0	No = 0  Yes =  O

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:  Stream is at least intermittent 17.25: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 13 e.g. Quad Name:

Absent 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Weak  1 1 1 1 1 1 0.5 0.5 = 0	Moderate   2   2   2   2   2   2   2   2   1   1	Strong  3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 0 0 No	1 1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 2 2 1	3 3 3 3 3 3 3 1.5
0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 2 1	3 3 3 3 3 3 3 1.5
0 0 0 0 0 0 0 0 0 0 No	1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 1	3 3 3 3 3 3 1.5
0 0 0 0 0 0 0 0 0 No	1 1 1 1 0.5 0.5	2 2 2 2 2 2 1	3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 No	1 1 1 0.5 0.5	2 2 2 2 2 1	3 3 3 3 1.5
0 0 0 0 0 0 No	1 1 0.5 0.5 = 0	2 2 2 1 1	3 3 3 1.5 1.5
0 0 0 0 0 No	1 0.5 0.5 = 0	2 2 1 1	3 3 1.5 1.5
0 0 0 No	0.5 0.5 = 0	2 1 1	3 1.5 1.5
0 0 No	0.5 0.5 = 0	1 1	1.5 1.5
0 No	0.5	1	1.5
No 0	= 0	<u> </u>	
0		Yes =	= 3
0	<mark>1</mark>	2	3
O O	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	= 3
		ı	
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75:	OBL = 1.5 Other = 0	-
	3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	No = 0  3	No = 0  Yes =  3

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:  Stream is at least intermittent 44: Perennial if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 14 e.g. Quad Name:

A. Geomorphology (Subtotal = <u>27</u> )	Absent	Weak	Moderate	Strong
1ª. 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,		4		
ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
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>
B. 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	= 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	0.5	0
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
C. Biology (Subtotal = 7_)			1	
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	
·	1	,		
Notes:				
Sketch:				

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:  Stream is at least intermittent 6: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 15 e.g. Quad Name:

A. Geomorphology (Subtotal = 3.5 )  a. Continuity of channel bed and bank				
a. Continuity of channel bed and bank	Absent	Weak	Moderate	Strong
-				
Cianacita et chamaci alama thalinea	0	1 1	2	3
2. Sinuosity of channel along thalweg B. In-channel structure: ex. riffle-pool, step-pool,	0	<u> </u>	2	3
ripple-pool sequence	<mark>0</mark>	1	2	3
I. 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
B. Headcuts	0	1	2	3
9. Grade control	0	<mark>0.5</mark>	1	1.5
0. Natural valley	0	0.5	1	1.5
1. Second or greater order channel	No	o = 0	Yes:	= 3
artificial ditches are not rated.				
3. Hydrology (Subtotal = 1 )				
2. Presence of Baseflow	0	1	2	3
3. Iron oxidizing bacteria	0	1	2	3
4. Leaf litter	1.5	1	0.5	0
5. Sediment on plants or debris	0	<mark>0.5</mark>	1	1.5
6. Organic debris lines or piles	0	<mark>0.5</mark>	1	1.5
7. Soil-based evidence of high water table?	No	<b>0</b> = <b>0</b>	Yes:	= 3
C. Biology (Subtotal = 2 )		<u> </u>		
8. Fibrous roots in streambed	3	2	1	0
9. 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; OI	BL = 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:  Stream is at least intermittent 13: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 16 e.g. Quad Name:

if ≥ 19 or perennial if ≥ 30*			ai c.g. Quad Name.	•
A. Geomorphology (Subtotal = 7_)	Absent	Weak	Moderate	Strong
1a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	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	o = 0	Yes	= 3
a artificial ditches are not rated.				
B. Hydrology (Subtotal = 4 )				
12. Presence of Baseflow	0	1	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	<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>0 = 0</mark>	Yes	= 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)	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:				
Sketch:				

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

if ≥ 19 or perennial if ≥ 30*			c.g. Quad Name.	•
A. Geomorphology (Subtotal = 3 )	Absent	Weak	Moderate	Strong
1a. Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	O	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	o = 0	Yes:	= 3
<sup>a</sup> artificial ditches are not rated.  B. Hydrology (Subtotal = 1 )				
12. Presence of Baseflow	O	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
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?		0.5	Yes:	
C. Biology (Subtotal = 2_)	100	<del>3 – 0</del>	103	
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	<u> </u>		OBL = 1.5 Other = 0	1.0
zo. Wodana plante in odreambea		171011 = 0.110,	<u> </u>	
Notes:				
Sketch:				

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:  Stream is at least intermittent 6: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 18 e.g. Quad Name:

0 0	1 1 1	2 2	3
0		2	_
	1		3
		2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
No	= 0	Yes	= 3
		1 -	I .
_			3
			3
+			0
			1.5
			1.5
No	= 0	Yes:	= 3
,		_	T
			0
			0
<u> </u>	1	2	3
0		2	3
0		1	1.5
		+	1.5
			1.5
0		<u> </u>	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	0 0 0 0 0 0 0 0 1.5 0 0 No	0 1 0 0 1 0 0.5 0 0.5 0 0.5 No = 0   0 1 0 1 0 0.5 No = 0   1 0 0.5 0 0.5 No = 0  1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0 1 2 0 1 2 0 0 1 2 0 0 0.5 1 0 0.5 1 No = 0 Yes  1 2 0 1 2 0 1 2 0 1 2 1.5 1 0.5 0 0.5 1 0 0.5 1 No = 0 Yes  1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0 5 1 0 0.5 1 0 0 0.5 1 0 0 0.5 1 0 0 0.5 1 0 0 0.5 1

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:  Stream is at least intermittent 28.25: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral <mark>Intermittent</mark> Perennial	Other Stream 19 e.g. Quad Name:

0 0 0 0 0 0	Weak  1  1  1  1  1  1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Strong           3           3           3           3           3
0 0 0	1 1	2 2	3
0	1	2 2	3
0	1	2	3
0			
	1	2	
0			3
+	1	2	3
0	1	2	3
0	11		3
0	<mark>0.5</mark>	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	<mark>= 3</mark>
0	1	2	3
0	1	2	3
1.5	1		0
0	0.5	1	1.5
0		1	1.5
		Yes =	
		•	
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	0 0 0 0 1.5 0 0 0 No	0 0.5 0 0.5 No = 0  1 0 1 1.5 1 0 0.5 0 0.5 0 0.5 No = 0  3 2 3 2 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0 0.5 1 No = 0 Yes =    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:  Stream is at least intermittent 16.25: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 20 e.g. Quad Name:

A. Geomorphology (Subtotal = 9.5 )	Absent	Weak	Moderate	Strong
Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	<u>.</u> 1	2	3
B. In-channel structure: ex. riffle-pool, step-pool,				
ripple-pool sequence	0	1	2	3
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
B. Headcuts	0	1	2	3
9. Grade control	0	<mark>0.5</mark>	1	1.5
0. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No	<u> </u>	Yes	= 3
artificial ditches are not rated.				
3. Hydrology(Subtotal = <u>4</u> )				
2. Presence of Baseflow	0	1	2	3
3. Iron oxidizing bacteria	0		2	3
4. Leaf litter	1.5	1	0.5	0
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	<u> </u>	Yes	
C. Biology (Subtotal = 2.75 )	l .		1	
18. Fibrous roots in streambed	3	2	1	0
9. 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	
·	l .			
Notes:				
Sketch:				

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:  Stream is at least intermittent 18.75: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 21 e.g. Quad Name:

A. Geomorphology (Subtotal = 11.5)	Absent	Weak	Moderate	Strong
1ª Continuity of channel bed and bank	0	1	2	3
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				
Particle size of stream substrate	0	<u>1</u>	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	<u>1</u>	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	<u>1</u>	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	<mark>= 0</mark>	Yes :	= 3
a artificial ditches are not rated.				
B. Hydrology (Subtotal = 4.5 )	<u> </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	0.5	0
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
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	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:				
Sketch:				

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:  Stream is at least intermittent 6: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 22 e.g. Quad Name:

0 0 0	Weak  1	Moderate	Strong
0	1		009
0		2	3
		2	3
O			
	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	= 3
		1	
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No		Yes =	
<b>'</b>			
3	2	1	0
3	2	1	0
0	1		3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75:	OBL = 1.5 Other = 0	
	0 0 0 0 0 0 0 0 1.5 0 0 0 No	0 1 0 0 1 0 0.5 0 0.5 0 0.5 No = 0   0 1 0 0.5 No = 0   0 1 1.5 1 0 0.5 0 0.5 No = 0  3 2 3 2 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0         1         2           0         1         2           0         0.5         1           0         0.5         1           No = 0         Yes = 0           0         1         2           0         1         2           1.5         1         0.5           0         0.5         1           0         0.5         1           No = 0         Yes = 0           3         2         1           0         1         2           0         1         2           0         1         2           0         1         2           0         0.5         1           0         0.5         1           0         0.5         1           0         0.5         1           0         0.5         1

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:  Stream is at least intermittent 6: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 23 e.g. Quad Name:

0 0 0 1.5	1 1 1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 1 1 1 Yes = 3	3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 No = 0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 1 1 Yes = 3	3 3 3 3 3 3 1.5
0 0 0 0 0 0 0 0 0 No = 0	1 1 1 1 1 0.5 0.5	2 2 2 2 2 1 1 Yes = 3	3 3 3 3 3 1.5
0 0 0 0 0 0 0 0 0 No = 0	1 1 1 1 1 0.5 0.5	2 2 2 2 2 1 1 Yes = 3	3 3 3 3 3 1.5
0 0 0 0 0 0 0 No = 0	1 1 1 1 0.5 0.5	2 2 2 2 1 1 Yes = 3	3 3 3 3 1.5
0 0 0 0 0 0 No = 0	1 1 0.5 0.5	2 2 2 1 1 Yes = 3	3 3 3 1.5
0 0 0 0 No = 0	1 0.5 0.5	2 2 1 1 Yes = 3	3 3 1.5
0 0 0 No = 0	1 0.5 0.5	2 1 1 Yes = 3	3 1.5
0 No = 0 No = 0	0.5 0.5	1 1 Yes = 3	1.5
0 0 0 1.5 0	1 1	1 Yes = 3	
No = 0  0 0 1.5 0 0	1 1	Yes = 3	1.5
0 0 1.5 0	1		
0 1.5 0 0	1	2	
0 1.5 0 0	1	2	
0 1.5 0 0	1	2	
1.5 0 0			3
0	1	2	3
0		0.5	0
0	0.5	1	1.5
	0.5	1	1.5
		Yes = 3	
	<u>'</u>		
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
_			1.5
	0.5	1	1.5
FAC\	W = 0.75: OBL = 1	1.5 Other = 0	
0 0 0	FAC	0.5 0.5 0.5 0.5	0.5     1       0.5     1       0.5     1

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:  Stream is at least intermittent 7: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 24 e.g. Quad Name:

0 0 1.5	Weak  1  1  1  1  1  1  1  0.5  0.5  1  1  1	Moderate  2 2 2 2 2 2 2 2 1 1 1 Yes =	Strong 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 1 0.5 0.5 0.5	2 2 2 2 2 2 2 2 2 1 1 1 Yes =	3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5 0 = 0	2 2 2 2 2 2 2 2 1 1 1 Yes =	3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5 0 = 0	2 2 2 2 2 2 1 1 1 Yes =	3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 0.5 0.5 0 = 0	2 2 2 2 2 1 1 1 Yes =	3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 1.5	1 1 1 1 0.5 0.5 0 = 0	2 2 2 2 1 1 1 Yes =	3 3 3 3 1.5 1.5
0 0 0 0 0 No	1 1 1 0.5 0.5 0.5 0 = 0	2 2 2 1 1 1 Yes =	3 3 3 1.5 1.5
0 0 0 0 No	1 0.5 0.5 0 = 0	2 2 1 1 Yes =	3 3 1.5 1.5
0 0 0 No	1 0.5 0.5 0 = 0	2 1 1 Yes =	3 1.5 1.5 = 3
0 0 0 0 1.5	0.5 0.5 0 = 0	1 1 Yes =	1.5 1.5 = 3
0 No	0.5 0 = 0 1 1	1 Yes =	1.5
0 0 1.5	1	Yes =	= 3
0 0 1.5	1	2	
0 1.5 0	1		3
0 1.5 0	1		3
0 1.5 0	1		3
1.5		0	
0		2	3
	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	0 = 0	Yes =	= 3
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
	•		
	3 0 0 0 0 0	3 2 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5	3     2       0     1       0     1       0     0.5       0     0.5       0     0.5       1     0       0     0.5       1     0

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:  Stream is at least intermittent 28.75: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 25 e.g. Quad Name:

A. Geomorphology (Subtotal = 20 )	Absent	Weak	Moderate	Strong
1a. Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	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	= 0	Yes = 3	
<sup>a</sup> artificial ditches are not rated. B. Hydrology(Subtotal = <u>6</u> )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
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:	
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
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75;	OBL = 1.5 Other = 0	
	•			
Notes:				
Sketch:				

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:  Stream is at least intermittent 28.75: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 26 e.g. Quad Name:

Geomorphology (Subtotal = 18 )  a. Continuity of channel bed and bank	Absent	Weak	Moderate	Strong
	0	1	2	3
Sinuosity of channel along thalweg	0	1		3
In-channel structure: ex. riffle-pool, step-pool,				
ripple-pool sequence	0	1	2	3
Particle size of stream substrate	0	<mark>1</mark>	2	3
Active/relict floodplain	0	1	2	3
Depositional bars or benches	0	1	2	3
Recent alluvial deposits	0	1	2	3
Headcuts	0	1	2	3
Grade control	0	0.5	1	1.5
D. Natural valley	0	0.5	1	1.5
Second or greater order channel	No	= 0	Yes :	= 3
artificial ditches are not rated.				
. Hydrology (Subtotal = <u>6</u> )				
2. Presence of Baseflow	0	1	2	3
3. Iron oxidizing bacteria	0	1	2	3
4. Leaf litter	1.5	1	0.5	0
5. Sediment on plants or debris	0	0.5	1	1.5
6. Organic debris lines or piles	0	0.5	1	1.5
7. Soil-based evidence of high water table?	No	= 0	Yes :	<mark>= 3</mark>
5. Biology (Subtotal = <u>4.75</u> )				
3. Fibrous roots in streambed	3	2	1	0
9. Rooted upland plants in streambed	3	2	1	0
Macrobenthos (note diversity and abundance)	0	1	2	3
1. Aquatic Mollusks	0	1	2	3
2. Fish	0	0.5	1	1.5
3. Crayfish	0	0.5	1	1.5
4. Amphibians	0	0.5	1	1.5
5. Algae	0	0.5	1	1.5
6. Wetland plants in streambed		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: Stream is at least intermittent 22.25: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 27 e.g. Quad Name:

A. Geomorphology (Subtotal = 12 )	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
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	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	= 0	Yes = 3	
<sup>a</sup> artificial ditches are not rated.				
B. Hydrology (Subtotal = 6.5)				
12. Presence of Baseflow	0	1	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	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 =	<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)	<u>0</u>	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	<u>0</u>	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26 Watland plants in streamhad		FACW = 0.75;	OBL = 1.5 Other = 0	
26. Wetland plants in streambed				
Notes:				
Notes:				
Notes:				

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:  Stream is at least intermittent 15.75: Ephemeral if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one)  Ephemeral Intermittent Perennial	Other Stream 28 e.g. Quad Name:

0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 2 1 1 1 Yes =	3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0	1 1 1 1 1 1 0.5	2 2 2 2 2 2 2 1 1	3 3 3 3 3 1.5
0 0 0 0 0 0 0	1 1 1 1 0.5 0.5	2 2 2 2 2 2 1 1	3 3 3 3 1.5 1.5
0 0 0 0 0 0 0	1 1 1 1 0.5 0.5	2 2 2 2 2 2 1 1	3 3 3 3 1.5 1.5
0 0 0 0 0 0 0 0 No	1 1 1 0.5 0.5	2 2 2 2 2 1 1	3 3 3 1.5 1.5
0 0 0 0 0 0 0 No	1 1 1 0.5 0.5	2 2 2 1 1	3 3 3 1.5 1.5
0 0 0 0 No	1 0.5 0.5	2 2 1 1	3 3 1.5 1.5
0 0 0 No	1 0.5 0.5	2 1 1	3 1.5 1.5
0 0 No	0.5 0.5	1 1	1.5 1.5
0 No	0.5	1	1.5
No			
	<u> = 0</u>	Yes =	= 3
0			
0			
0			
<u></u>	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	= 0	Yes =	<mark>= 3</mark>
		.1	
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	0.5	1	1.5
	0 0 No 3 3 0	0 0.5 0 0.5 No = 0  3 2 3 2 0 1 0 1 0 0.5 0 0.5 0 0.5	0 0.5 1 0 0.5 1 No = 0 Yes =  3 2 1 3 2 1 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1

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:  Stream is at least intermittent 22.25: Intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other Stream 29 e.g. Quad Name:

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Weak  1 1 1	Moderate 2 2 2	Strong 3 3
0 0 0 0	1	2	
0 0 0	1		3
0		2	+
0	1	_	3
	<u> </u>	2	3
	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	<mark>0.5</mark>	1	1.5
No	= 0	Yes:	<del>=</del> 3
		•	
0		2	3
0		2	3
			0
		1	1.5
0	0.5	1	1.5
No	= 0		
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75;	OBL = 1.5 Other = 0	
·			
	0 0 No No No No O O O O O O O O O O O O O O	0 0.5 0 0.5 No = 0  No = 0  1 0 1 1.5 1 0 0.5 0 0.5 0 0.5 No = 0  3 2 3 2 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0 0.5 1 No = 0 Yes:  0 1 2 0 1 2 1.5 1 0.5 0 0.5 1 0 0.5 1 No = 0 Yes:  1 2 1 2 1.5 1 0.5 0 0.5 1 0 0 1 2 1 2 1 1 2 1 1 3 2 1 1 3 2 1 1 2 1 1 3 2 1 1 2 1 1 3 2 1 1 3 2 1 1 3 3 2 1 1 3 3 2 1 1 4 5 5 6 7 1 5 7 1 7 1 7 1 8 7

### 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

Rec	uest	No	o. 4	:
ĸec	luest	INC	0.4	

Provide any written	communications	or reports	from t	the U.S.	Department	of Fish	and	Wildlife
related to this project	et.							

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 <a href="https://www.fws.gov/savethemonarch">https://www.fws.gov/savethemonarch</a>

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 <a href="mailto:Carrie\_Allison@fws.gov">Carrie\_Allison@fws.gov</a>.

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: <u>Airport Zoning Commission</u>

To: <u>Dutton, Gregory T.</u>; <u>Airport Zoning Commission</u>

Cc: Chad Martin

Subject: RE: Telesto Solar Project TC 55 and attachments for approval.

Date: Thursday, October 6, 2022 9:28:55 AM

Attachments: <u>image007.png</u>

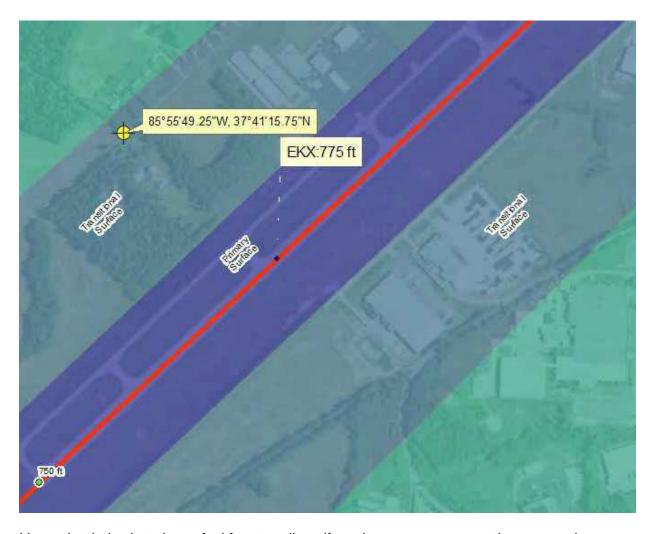
image008.png image009.png image010.png image011.png image001.png

#### 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). FAA Issues Policy on Solar Projects on Airports | Federal Aviation Administration

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 < chad.martin@cardno.com > Sent: Monday, October 3, 2022 12:49 PM
To: Dutton, Gregory T. < gdutton@fbtlaw.com >

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 < ionathan.hess@cardno.com >; Airport Zoning Commission < Airport Zoning@ky.gov >

**Cc:** Chad Martin < <a href="mailto:chad.martin@cardno.com">com</a>>

**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 < <a href="mailto:chad.martin@cardno.com">cardno.com</a>>

**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.

Responding Witness: Jack Steele

Case No. 2022-00096

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.

Responding Witness: Jack Steele

Case No. 2022-00096

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.

Responding Witness: Jack Steele

# **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:

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

Attn: Steven Borst

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

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-----LINKS -----

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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.

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# **Sample Summary**

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

Job ID: 440-232851-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
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

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#### **Case Narrative**

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

Job ID: 440-232851-1

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.

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

Client Sample ID: 012819 TCLP01

Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

Lab Sample ID: 440-232851-1

Lab Sample ID: 440-232851-2

**Matrix: Solid** 

Analyte	Result Qu	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:50	1
Silver	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:50	1
Cadmium	0.42	0.10	mg/L		02/11/19 05:46	02/11/19 20:50	1
Barium	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:50	1
Arsenic	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:50	1
Selenium	ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:50	1
Chromium	ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:50	1

Method: 7470A - Mercury (CVAA) - TCLP Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Mercury ND 0.0020 mg/L 02/22/19 14:41 02/23/19 04:13

Client Sample ID: 012819 TCLP02

Date Collected: 01/28/19 08:00 **Matrix: Solid** Date Received: 02/08/19 10:45

Method: 6010B - Metals (ICI	P) - TCLP						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND 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 Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Mercury 0.0020 mg/L 02/22/19 14:41 02/23/19 04:20 ND

Date Received: 02/08/19 10:45

Client Sample ID: 012819 TCLP03 Lab Sample ID: 440-232851-3 Date Collected: 01/28/19 08:00 **Matrix: Solid** 

Analyte	Result Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Lead	ND 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

Wethod. 1410A - Wercury (CVA	IA) - I GLP							
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

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

Client Sample ID: 012819 TCLP04

Date Collected: 01/28/19 08:00

Lab Sample ID: 440-232851-4

**Matrix: Solid** 

Date Received: 02/08/19 10:45

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:45	1
Silver	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:45	1
Cadmium	0.55	0.10	mg/L		02/11/19 05:46	02/11/19 20:45	1
Barium	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:45	1
Arsenic	ND	0.20	mg/L		02/11/19 05:46	02/11/19 20:45	1
Selenium	ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:45	1
Chromium	ND	0.10	mg/L		02/11/19 05:46	02/11/19 20:45	1

Method: 7470A - Mercury (CVAA) - TCLP Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Mercury ND 0.0020 mg/L 02/22/19 14:41 02/23/19 04:24

Client Sample ID: 012819 TCLP05

Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND 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

Method: 7470A - Mercury (CV)	AA) - 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 04:26	1

Eurofins TestAmerica, Irvine

# **Method Summary**

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

Job ID: 440-232851-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
1311	TCLP Extraction	SW846	TAL IRV
3010A	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

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

Client Sample ID: 012819 TCLP01

Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45 Lab Sample ID: 440-232851-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	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

Client Sample ID: 012819 TCLP02

Date Collected: 01/28/19 08:00

Date Received: 02/08/19 10:45

Lab Sample ID: 440-232851-2

Lab Sample ID: 440-232851-3

Lab Sample ID: 440-232851-4

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

	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 20:40	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 04:20	DB	TAL IRV

Client Sample ID: 012819 TCLP03

Date Collected: 01/28/19 08:00

**Date** 

Date Received	Date Received: 02/08/19 10:45										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	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	

TCL TCL **TCLP** 528067 TAL IRV Analysis 6010B 1 02/11/19 20:42 P1R **TCLP** Leach 1311 99.97 q 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 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

	Batch	Batch		Dil	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	Prep	3010A			5 mL	50 mL	527844	02/11/19 05:46	CDH	TAL IRV
TCLP	Analysis	6010B		1			528067	02/11/19 20:45	P1R	TAL IRV
TCLP	Leach	1311			99.94 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 04:24	DB	TAL IRV

Eurofins TestAmerica, Irvine

#### **Lab Chronicle**

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

Job ID: 440-232851-1

Client Sample ID: 012819 TCLP05 Lab Sample ID: 440-232851-5

. Matrix: Solid

Date Collected: 01/28/19 08:00 Date Received: 02/08/19 10:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
TCLP	Leach	1311			99.98 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 20:47	P1R	TAL IRV
TCLP	Leach	1311			99.98 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 04:26	DB	TAL IRV

#### **Laboratory References:**

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

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Job ID: 440-232851-1

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

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-527738/1-B

**Matrix: Solid** 

Analysis Batch: 528067

**Client Sample ID: Method Blank** 

**Prep Type: TCLP** 

Prep Batch: 527844

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

MR MR

Lab Sample ID: LCS 440-527738/2-B

**Matrix: Solid** 

Analysis Batch: 528067

**Client Sample ID: Lab Control Sample** 

**Prep Type: TCLP** 

Prep Batch: 527844

	Spike	LCS	LCS				%Rec.	
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** 

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

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 - 125	

Lab Sample ID: 440-224566-A-1-G MSD

Matrix: Solid

Analysis Batch: 528067

Client Sample ID: Matrix Spike Duplicate

**Prep Type: TCLP Prep Batch: 527844** 

Alialysis Dalcii. 520001									Fieb Do	ILCII. 34	27044
	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

## **QC Sample Results**

Client: First Solar Electric LLC Job ID: 440-232851-1

Project/Site: Willow Springs

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

MB MB

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 ND
 0.0020
 mg/L
 02/22/19 14:41
 02/23/19 04:09
 1

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 Mercury 0.0816 mg/L 102 80 - 120

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 Limits Unit %Rec ND 0.0800 70 - 130 Mercury 0.0824 mg/L 103

Lab Sample ID: 440-232851-1 MSD

Matrix: Solid

Analysis Batch: 530531

Client Sample ID: 012819 TCLP01

Prep Type: TCLP

Prep Batch: 530208

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Limits Analyte Added Result Qualifier D %Rec RPD Limit Unit Mercury ND 0.0800 0.0817 102 70 - 130 mg/L

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Prep Batch: 530208

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# **QC Association Summary**

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

Job ID: 440-232851-1

#### **Metals**

#### Leach Batch: 527738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-232851-1	012819 TCLP01	TCLP	Solid	1311	_
440-232851-2	012819 TCLP02	TCLP	Solid	1311	
440-232851-3	012819 TCLP03	TCLP	Solid	1311	
440-232851-4	012819 TCLP04	TCLP	Solid	1311	
440-232851-5	012819 TCLP05	TCLP	Solid	1311	
MB 440-527738/1-B	Method Blank	TCLP	Solid	1311	
MB 440-527738/1-D	Method Blank	TCLP	Solid	1311	
LCS 440-527738/2-B	Lab Control Sample	TCLP	Solid	1311	
LCS 440-527738/2-D	Lab Control Sample	TCLP	Solid	1311	
440-224566-A-1-F MS	Matrix Spike	TCLP	Solid	1311	
440-224566-A-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
440-232851-1 MS	012819 TCLP01	TCLP	Solid	1311	
440-232851-1 MSD	012819 TCLP01	TCLP	Solid	1311	

#### **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

Eurofins TestAmerica, Irvine

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# **QC Association Summary**

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

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## **Definitions/Glossary**

Client: First Solar Electric LLC

Job ID: 440-232851-1

Project/Site: Willow Springs

**Glossary** 

Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		
CFL	Contains Free Liquid		
CNF	Contains No Free Liquid		

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

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)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry)
MDC Minimum Detectable Concentration (Radiochemistry)

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)
TEQ Toxicity Equivalent Quotient (Dioxin)

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# **Accreditation/Certification Summary**

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

### 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	<b>Expiration Date</b>
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 *

Eurofins TestAmerica, Irvine

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

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1:

Client: First Solar Electric LLC

Job Number: 440-232851-1

Login Number: 232851 List Source: Eurofins TestAmerica, Irvine

List Number: 1

Creator: Skinner, Alma D

Answer / True N/A N/A	Not present
N/A N/A	•
N/A	•
Truo	Not Present
True	
N/A	
True	
True	
True	
True	
N/A	
N/A	
	True True True True True True True True

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

EPA HW No. 1	Contaminant	CAS No. <sup>2</sup>	Regu- latory Level (mg/L)
D004	Arsenic	7440–38–2	5.0
D005	Barium	7440-39-3	100.0
D018	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	3 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its ep- oxide).	76–44–8	0.008
D032	Hexachlorobenzene	118–74–1	30.13
D033	Hexachlorobutadiene	87–68–3	0.10
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	35.0
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>&</sup>lt;sup>1</sup> Hazardous waste number.

[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]

#### 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.

<sup>&</sup>lt;sup>2</sup>Chemical abstracts service number.

<sup>3</sup>Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory

level.

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

Case No. 2022-00096

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.

Responding Witness: Jack Steele

Case No. 2022-00096

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.

Responding Witness: Jack Steele

Case No. 2022-00096

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.

Responding Witness: Jack Steele