

DOE/EA-1833D

**Floodplain and Wetland Assessment for the
Installation of a 20MW Solar Facility at
Chicago Rockford International Airport,
City of Rockford, Winnebago, Illinois**

September 21, 2011

**Prepared by
U.S. Department of Energy
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1.0 INTRODUCTION

This Floodplain and Wetland assessment has been prepared in accordance with 10 *Code of Federal Regulations (CFR) 1022*, “Compliance with Floodplain/Wetlands Environmental Review Requirements” which were promulgated to implement the requirements of the U.S. Department of Energy’s (DOE’s) responsibilities under Executive Order 11988, *Floodplain Management*, and Executive Order 11990, *Wetlands Protection*. These regulations and Executive Orders encourage measures to preserve and enhance the natural and beneficial functions of floodplains and wetlands. It also requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands, and the occupancy and modification of floodplains. Direct and indirect support of floodplain development and the direct and indirect support of new construction in wetlands are to be avoided whenever there is a practicable alternative.

According to 10 CFR 1022, a floodplain is defined as the lowlands adjoining inland and coastal waters and relatively flat areas and flood prone areas of offshore islands, including, at a minimum, that area inundated by a 1 percent or greater chance flood in any given year (the “100-year floodplain”). Pursuant to 10 CFR 1022, a wetland is defined as an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

As reflected on the *Rockford Solar Energy Project – Proposed Location of the Solar Farm* (Figure 1), this assessment evaluates the potential effects to floodplains and wetlands associated with the installation of the proposed Solar Energy Project at the Chicago Rockford International Airport, Rockford, Illinois (Winnebago County). The proposed project was redesigned to avoid any potential impacts to wetlands and would not impact the floodway.

The proposed Solar Energy Project would be located on the Chicago Rockford International Airport property, in Rockford, Illinois. Four other potential on-airport sites for proposed Solar Energy Project were evaluated during preliminary site assessment; however only the south site (proposed site) is considered the preferred and proposed alternative. A detailed discussion of the four sites evaluated is provided in Section 5.0 of this document.

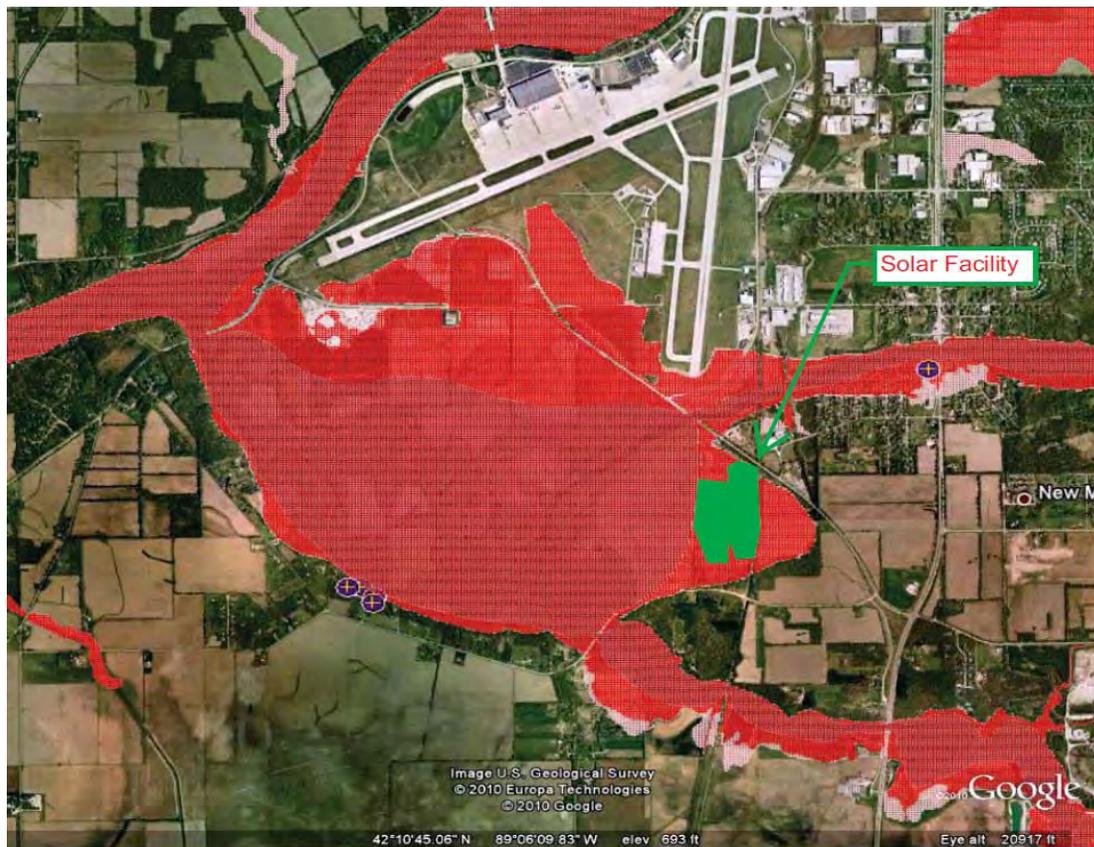
RSP provided agencies with an early notice letter on July 8th, 2010. Those agencies and stakeholders that received the letter include: Illinois State Historical Preservation Office, Illinois Department of Natural Resources: Water Resources Office, the Federal Aviation Administration, Bureau of Land Management Planning and NEPA Division, US Environmental Protection Agency, U.S. Army Corps of Engineers, USDA Natural Resources Conservation Service, U.S. Fish and Wildlife Service.

2.0 FLOODPLAIN AND WETLAND DESCRIPTION IN THE PROJECT AREA

2.1 Description of Floodplains

Pursuant to 10 CFR Part 1022, DOE reviewed the Federal Emergency Management Agency (FEMA) Flood Rate Insurance Map (FIRM). The 100-year floodplain occurs within the entire proposed project area; however the proposed project would not be located within the designated floodway of the Kishwaukee River. The regulatory floodway is defined as the channel of a river or other watercourse and the adjacent land areas that must be restored to previous grade in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. These features are depicted on Figure 2. To the west of the proposed project the Kishwaukee River begins to meander as it meets the low-lying areas that precede the confluence between the Kishwaukee and Rock River. These areas to the west are consistent of alluvial deposits from the Kishwaukee River and are comprised entirely of Forested and Emergent Wetlands.

Figure 2, Rockford Solar Floodplain Map (National Flood Hazard Layer Web Map Service (WMS) in Google Earth™)



-  Lowest Elevations
-  100 Year Floodplain
-  Floodway

2.2 Description of Wetlands

Also pursuant to 10 CFR Part 1022, DOE reviewed the USFWS National Wetlands Inventory (NWI) map. According to the USFWS NWI Map (Below), there are no wetlands located in the immediate proximity of the proposed project area. However, Rockford Solar Partners prepared a Jurisdictional Waters Delineation Report for the Proposed Rockford Solar Energy Project. Although the US Army Corps of Engineers (USACOE) has not concurred on their findings, RSP concluded that approximately 30.6 acres of both Forest and Emergent wetlands exist within the property boundaries, of which 21.9 were interpreted through field reconnaissance. Based on the review of this report, DOE has concluded that no wetlands are located within the proposed limits of disturbance associated with the proposed project. However, based on aerial imagery, there appears to be a emergent wetland in the vicinity. Figures 2 and 3 provide the results of the wetlands inventory.

Figure 3, Rockford Solar Wetlands Map (USFWS National Wetlands Inventory-Wetlands Mapper)

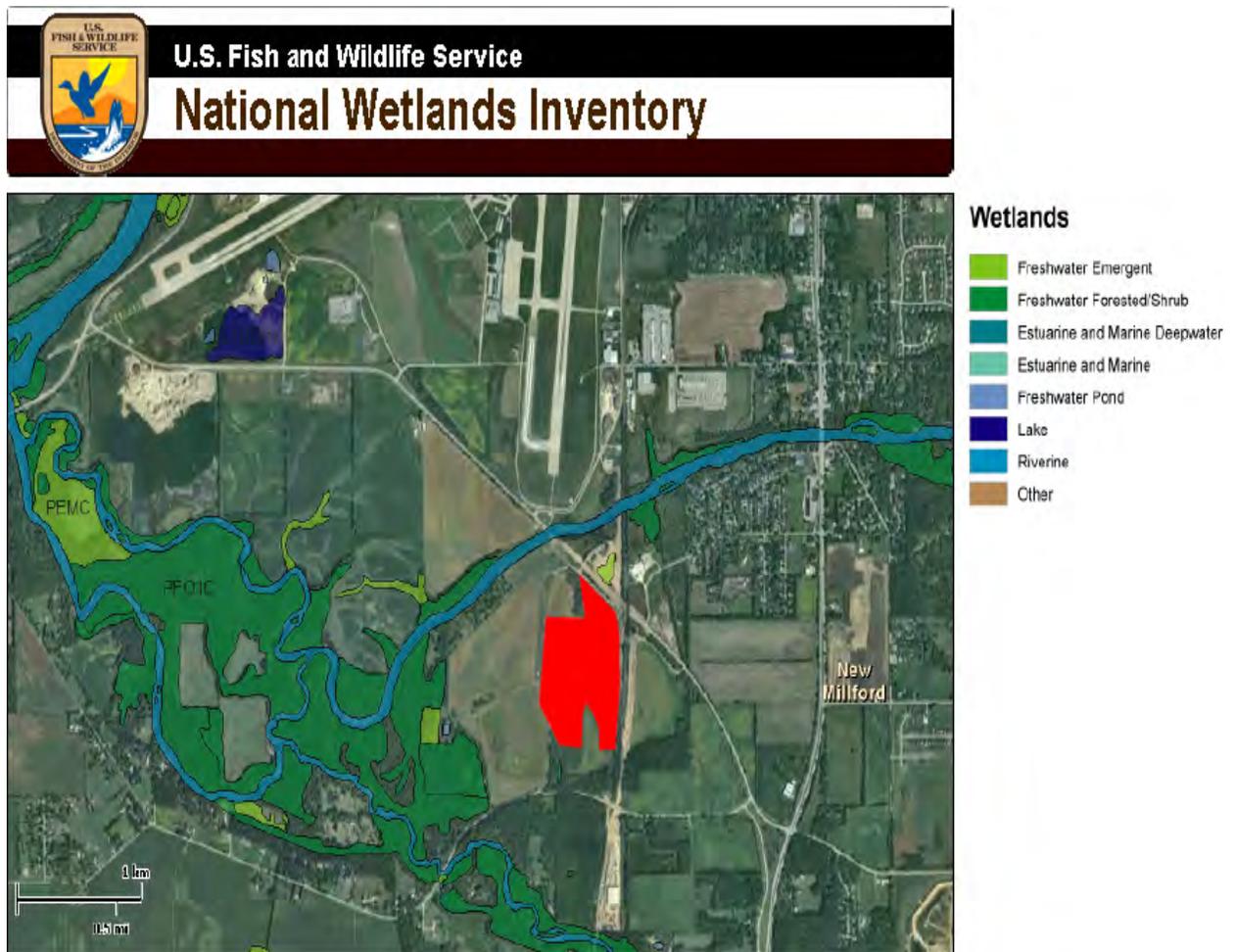


Figure 4, Rockford Solar Wetlands Map (Civil & Environmental Consultants, Inc.-Jurisdictional Waters Delineation Report)



3.0 PROJECT DESCRIPTION AND ALTERNATIVES

During preliminary site evaluations, alternative sites for the Solar Energy Project were considered and dismissed in Section 2.3 of the Draft EA. These alternatives were identified by the Greater Rockford Airport Authority (GRAA) and Rockford Solar Partners.

DOE's proposed action would be to authorize the use of approximately \$4 million in funding to design, permit, and construct the proposed 20 megawatt Solar Energy Project. The proposed project would be located on land owned by the GRAA at the Chicago Rockford International Airport in the City of Rockford, Winnebago County, Illinois. The proposed location is adjacent to Baxter and South Bend Road, with an approximate center point of 42° 10' 26.07" N, 89° 5' 23.74" W (NAD-83). Title to the land is held in a fixed-term leasehold estate. GRAA is the landowner, the City of Rockford is the lessee, and Rockford Solar Partners (RSP) is the sub-lessee. The lease term is for 30 years and stipulates that RSP is fully permitted to use the land for the "development and operation of a solar farm". The lease provides an option which could be exercised by RSP to extend the lease term with the same terms and conditions.

The Solar Energy Project would utilize 280 watt multi-silicon solar cells. They would be mounted in groups of 4 panels using a fixed Ground Mount PV System. The 4 panels would be attached to a rack mounted on 2 support posts approximately 13 feet apart. The posts would be driven into the ground with approximately 2 to 5 feet exposed aboveground. The elevation of the posts would be carefully calculated so at least 2 feet of clearance exists above the established Base Flood Elevation (BFE).

The majority of the proposed project site is at or near the 700' BFE which delineates the floodway from the floodplain. No fill material would be brought onto the proposed project site and no fill material would be generated from the proposed construction. Tree removal would occur along the Northeast of the site's boundary as necessary (Figure 1). Limited quantities of hazardous materials would be used and stored on-site for Operations & Maintenance. These materials may include lubricants, solvents, janitorial supplies, office supplies, paints, degreasers, gasoline, hydraulic fluid, propane, and welding rods. These materials would be stored, used, and disposed of in accordance with all applicable local, state, and Federal laws and regulations. All flammable materials (ie. paints and solvents) would be stored consistent with state and federal regulations.

This project would be specifically located on a portion of the property that has been previously disturbed (agricultural use). The ground disturbing activities for this project would consist of an approximate 70 acre portion of the property that is currently being leased and cultivated for corn and soybean production.

4.0 ESTIMATED IMPACTS OF THE PROPOSED ACTION AND NO-ACTION ALTERNATIVE TO FLOODPLAINS AND WETLANDS

Construction activities associated with the installation of the solar arrays and associated infrastructure would involve work to be performed within the 100-year floodplain. The existing elevations and flow paths of the area within the floodplain of the Kankakee River are not expected to change with any significance. The nature and extent of the flood hazard caused by the proposed action is not expected to change from the present conditions.

No long-term negative direct or indirect impacts to the beneficial values of the 100-year floodplain of the Kankakee River or the wetlands adjacent to the proposed site would be expected under the proposed action. No effects to lives or property associated with floodplain disturbance are anticipated. The survival, quality and function of the wetlands would not be expected to be impacted. The construction period would occur over a short duration, and all construction would be carried out in accordance with an approved storm water pollution prevention plan, associated National Pollutant Discharge Elimination System (NPDES) permit and utilize Best Management Practices (BMPs) for sedimentation and erosion. All of which would minimize the potential impacts to adjacent wetlands and any potential floodwaters down slope of the proposed project site.

Short-term direct impacts to the floodplain would result from the temporary disturbance of the area during the limited amount of earth moving required for the proposed project. The potential does exist for sediment run-off as a result of a large storm event during the construction/installation period. The erosion has the potential to result in a temporary localized reduction in the water quality of the Kankakee River. However, sediment and erosion controls such as silt fencing, silt dikes, and other requirements of the NPDES permit would prevent disturbance to adjacent areas of the floodplain and would protect the Kankakee River from the influx of silt contained in runoff. Spill control measures would be utilized when necessary and spill control kits would be readily available for use at all field locations where heavy equipment would be utilized. After construction activities are completed, the affected floodplain areas would be graded, seeded, and restored to their previous condition using native vegetation.

Under the No Action Alternative, conditions would remain unchanged and operations at the Chicago Rockford International Airport would continue as otherwise planned but without the use and benefit of the proposed Solar Energy Project. Without the use of the solar generated energy, the surrounding area would not reduce its reliance on commercially generated power from carbon based facilities.

Under the No Action Alternative, environmental conditions and site characteristics of the preferred would be unchanged. There would be no potential impacts to floodplains and wetlands other than what may naturally occur.

5.0 CONCLUSION

The proposed action is not expected to result in adverse impacts to the Kishwaukee River 100-year floodplain associated or impact the wetlands located on the property.

Temporary disturbance within the floodplain would cease following completion of construction and excavating/trenching activities associated with the proposed action. Any temporary disturbance would require erosion and sediment controls during construction. Site restoration would follow.

In accordance with 10 CFR Part 1022, a Statement of Findings based on the information in this document would be published as part of a potential FONSI. The statement of findings would include a brief description of the proposed action and an explanation indicating why it is in the floodplain, the alternatives considered, a statement indicating if the action conforms to State and local floodplain requirements and a brief description of the steps to be taken to minimize potential harm within the floodplain.



August 20, 2010

Mr. Brad Brown
Anderson Environmental & Engineering, Co.
124 N. Water St., Ste. 206
Rockford, IL 61107

Dear Mr. Brown:

Subject: Jurisdictional Waters Delineation Report
Proposed Rockford Solar Field Project
Rockford, Winnebago County, Illinois
CEC Project No. 101-114

Civil & Environmental Consultants, Inc. (CEC) is pleased to present the attached revised jurisdictional waters delineation report for the Proposed Rockford Solar Field Project, located in Rockford, Winnebago County, Illinois.

We appreciate the opportunity to be of service to Anderson Environmental & Engineering, Co. on this project. Please call us if you have any questions or need further assistance.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.


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JURISDICTIONAL WATERS DELINEATION REPORT
PROPOSED ROCKFORD SOLAR FIELD PROJECT
ROCKFORD, WINNEBAGO COUNTY, ILLINOIS

PREPARED FOR:

ANDERSON ENVIRONMENTAL & ENGINEERING, CO.

PREPARED BY:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
CINCINNATI, OHIO

CEC Project No. 101-114

July 28, 2010 (Revised August 20, 2010)



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1.0 INTRODUCTION

1.1 GENERAL INFORMATION

This report presents the findings of a jurisdictional waters delineation study conducted at the proposed Rockford Solar Field Project (the Project Area), located in Rockford, Winnebago County, Illinois. The proposed Rockford Solar Field Project will consist of a solar power generating facility constructed to provide affordable and renewable energy to residential, commercial, and industrial customers within the Rockford Area. The Project Area consists of two irregularly-shaped parcels of land, totaling approximately 205 acres, located south of the Chicago Rockford International Airport (RFD), south of Runway 19, and the Kishwaukee River (Figure 1).

The jurisdictional waters delineation is associated with a U.S. Department of Energy (DOE) Environmental Assessment of the Project Area. Civil & Environmental Consultants, Inc. (CEC) conducted the field reconnaissance portion of the jurisdictional waters delineation on July 6th and 7th, 2010. Our services were provided in accordance with our proposal submitted to Anderson Environmental & Engineering, Co.

1.2 METHODOLOGY

This report identifies delineated wetlands, streams (ephemeral, intermittent, and perennial), and other waters within the Project Area. The methodology for conducting the wetland and stream delineation is presented below.

1.2.1 Wetlands

The wetland delineation was conducted using the routine on-site determination method described in the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (Corps Manual) and the *Interim Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Midwest Supplement), and supplemented by the *National List of*



Plant Species That Occur in Wetlands: North Central Region (Region 3) (Reed 1988) and the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (USDA 2010). Additionally, in areas where disturbance had occurred, CEC made assumptions based upon current site conditions. CEC completed the following scope of services to identify and delineate interpreted jurisdictional wetlands within the Project Area:

1. Office Data Review: CEC personnel reviewed the U.S. Geological Survey (USGS) topographic map (Figure 1), the USDA-NRCS Web Soil Survey, (USDA 2010; Figure 2), and the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map (Figure 3). These resources were used to establish site characteristics that aided in the identification of potential wetland areas.
2. Site Reconnaissance: CEC performed the wetland delineation using the routine on-site determination method on July 6th and 7th, 2010. First, plant communities present within the Project Area were identified. The dominant plant species within each community were identified and an assessment was made on whether or not the plant community was dominated by hydrophytic (wetland) plants. Next, a representative test site was located within the plant community and soils were sampled using a spade shovel to assess the presence of hydric soil indicators. Lastly, the test site was observed for indicators of wetland hydrology (ponding, soil saturation, etc.). If areas having wetland vegetation, hydric soils, and wetland hydrology were found, a test site was located outside the wetland to delineate where the wetland boundary could be located. Additionally, wetlands were marked in the field with consecutively numbered surveyor's ribbon flags and subsequently mapped onto the Rockford, Illinois quadrangle of the USGS 7.5-minute topographic map using data generated from a Trimble GeoXT Global Positioning System (GPS) unit. Other potential jurisdictional waters, such as ephemeral, intermittent or perennial streams located within the Project Area, were also identified, where applicable (Section 1.2.2).
3. Data Collection: Midwest Supplement wetland determination data forms for the routine on-site determination method were completed at twelve representative locations within the Project Area (see Figure 4 for location and Appendix I for the Midwest Supplement wetland determination data forms). The data sheets provide a record of the vegetation, soils, and hydrology observations used in making the wetland determination. Photographs of the wetland determination test sites are included in Appendix II.

1.2.2 Streams

In addition to the identification of wetlands, CEC identified streams within the Project Area that would likely be considered jurisdictional by the USACE. Using professional judgment and field indicators such as flow, substrate composition, embeddedness, defined bed and bank, vegetation,



and benthic macroinvertebrates, CEC classified on-site stream segments, if found, into three stream types: ephemeral, intermittent, and perennial. The following descriptions are provided to clarify the different stream classifications.

- Ephemeral Stream – An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.
- Intermittent Stream – An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
- Perennial Stream – A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

As background, the uppermost limit of an ephemeral stream is determined at the point where the stream loses its defined "bed and bank" or ordinary high water mark (OHWM) and a predominance of upland vegetation occurs in the channel. Under natural, undisturbed conditions, streams generally originate as headwater ephemeral drainages along the tops of ridges or higher elevations within the landscape, transition into intermittent stream systems, and eventually transition into perennial stream systems.



2.0 FINDINGS

2.1 NATIONAL WETLANDS INVENTORY MAP

NWI maps have been prepared by the USFWS based on high altitude infrared aerial photography and limited ground truthing. Wetlands and deep-water habitats are identified on these maps and classified according to the system developed by Cowardin and co-workers (1979). The aerial photographs reflect conditions during the specific year and season the data were acquired and all wetlands may not be indicated.

The NWI map for the Rockford, Illinois quadrangle identifies the following wetlands within the Project Area (Figure 3):

- One wetland, classified as palustrine, scrub-shrub, broad-leaved deciduous, and temporarily flooded (PSS1A), within the southeastern portion of the Project Area.
- One wetland complex, consisting of palustrine emergent, temporarily flooded (PEMA) wetland; palustrine, forested, broad-leaved deciduous seasonally flooded (PFO1C) wetland; and palustrine, scrub-shrub/forested broad-leaved deciduous seasonally flooded (PSS/FO1C) wetland within the western portion of the Project Area.

As noted in the following sections of this report, the NWI map does not accurately depict the current wetland conditions observed by CEC within the Project Area.

2.2 SOILS

Soil maps obtained from the USDA-NRCS Web Soil Survey show eight soil types mapped within the Project Area (Table 1; Figure 2). Two of the eight soil types within the Project Area have been identified by the NRCS as hydric (USDA 2010).



**TABLE 1
SOILS INFORMATION
Rockford Solar Field Project Area
Rockford, Winnebago County, Illinois**

Soil Mapping Unit Name (Symbol)	Taxonomy	Drainage Class	Hydric Soil List Designation
Hoopeston sandy loam, 0 to 2 percent slopes (172A)	Aquic Hapludolls	Somewhat Poorly Drained	Non-Hydric
Hononegah loamy coarse sand, 0 to 2 percent slopes (354A)	Entic Hapludolls	Excessively drained	Non-Hydric
Hononegah loamy coarse sand, 2 to 6 percent slopes (354B)	Entic Hapludolls	Excessively drained	Non-Hydric
Orthents, loamy, undulating (802B)	Typic Udorthents	Well Drained	Non-Hydric
Rodman and Warsaw complex, 4 to 6 percent slopes, eroded (939C2)	Typic Hapludolls/ Typic Argiudolls	Excessively drained	Non-Hydric
Millington silt loam, 0 to 2 percent slopes, frequently flooded (3082A)	Cumulic Endoaquolls	Poorly Drained	Hydric
Comfrey loam, 0 to 2 percent slopes, frequently flooded (3776A)	Cumulic Endoaquolls	Poorly Drained	Hydric
Psamments, 0 to 2 percent slopes, frequently flooded (3800A)	Udipsamments	Well Drained	Non-Hydric

2.3 PLANT COMMUNITIES

The plant communities present within the Project Area consist of agricultural land, old field vegetation, old field vegetation with scattered trees, upland deciduous forest, palustrine forested wetland, and palustrine emergent wetland. Dominant plant species comprising these plant communities were identified and the USFWS wetland plant indicator status was determined according to Reed (1988). The USFWS has defined five wetland plant indicator categories, which include:

- Obligate wetland (OBL – has >99% probability of occurring in wetlands);
- Facultative wetland (FACW – has 66 to 99% chance of occurring in wetlands);
- Facultative (FAC – has 33 to 66% chance of occurring in wetlands);
- Facultative upland (FACU – has 1 to 33% chance of occurring in wetlands); and
- Upland (UPL – has <1% chance of occurring in wetlands).



Plants classified as OBL, FACW or FAC are considered to be wetland plants (hydrophytes) by the USFWS and USACE.

Agricultural land within the Project Area consisted of soybean (*Glycine max*) fields located within the central portion of the Project Area and a corn (*Zea mays*) field located within the eastern portion of the Project Area.

One area of old field vegetation was located within the northwest portion of the Project Area. Areas of old field with scattered trees were located within the northeastern portion and the western portion of the Project Area. These areas were dominated by smooth brome (*Bromus inermis*), whorled milkweed (*Asclepias verticillata*), common milkweed (*Asclepias syriaca*), goatsbeard (*Aruncus dioicus*), white vervain (*Verbena urticifolia*), black-eyed susan (*Rudbeckia hirta*), summer grape (*Vitis aestivalis*), common plantain (*Plantago major*), yarrow (*Achillea millefolium*), tall fescue (*Schedonorus phoenix*), tall goldenrod (*Solidago altissima*), poison ivy (*Toxicodendron radicans*), spotted knapweed (*Centaurea stoebe*), Queen Anne's lace (*Daucus carota*), common mullein (*Verbascum thapsus*), annual sunflower (*Helianthus annuus*), bouncingbet (*Saponaria officinalis*), red clover (*Trifolium pratense*), evening primrose (*Oenothera biennis*), dotted smartweed (*Polygonum punctatum*), daisy fleabane (*Erigeron annuus*), and Virginia creeper (*Parthenocissus quinquefolia*). Scattered tree species observed within the old field areas included eastern red cedar (*Juniperus virginiana*), red elm (*Ulmus rubra*), boxelder (*Acer negundo*), honey locust (*Gleditsia triacanthos*), eastern cottonwood (*Populus deltoides*), red mulberry (*Morus rubra*), staghorn sumac (*Rhus typhina*), green ash (*Fraxinus pennsylvanica*), and spruce (*Picea pungens*).

Upland deciduous forest was located within the western portion of the Project Area. Dominant canopy species included swamp white oak (*Quercus bicolor*), honey locust, black walnut (*Juglans nigra*), and red elm. Dominant understory vegetation included Amur honeysuckle (*Lonicera maackii*), silky dogwood (*Cornus amomum*), red mulberry, hawthorn (*Crataegus* sp.), Virginia creeper, common blue violet (*Viola sororia*), summer grape, Virginia wild rye (*Elymus virginicus*), hairy pagoda-plant (*Blephilia hirsuta*), garlic mustard (*Alliaria petiolata*), currant (*Ribes* sp.), wild ginger (*Asarum canadense*), poison ivy, tall goldenrod, stinging nettle (*Urtica*



dioica), greenbrier (*Smilax* sp.), jumpseed (*Polygonum virginianum*), wingstem (*Verbesina alternifolia*), and white avens (*Geum canadense*).

Palustrine forested wetlands were located within the southern and western portions of the Project Area. Dominant canopy species included silver maple (*Acer saccharinum*), green ash, eastern cottonwood, boxelder, American elm (*Ulmus americana*), common hackberry (*Celtis occidentalis*), and swamp white oak. Dominant understory vegetation included buttonbush (*Cephalanthus occidentalis*) and spicebush (*Lindera benzoin*). Herbaceous species included moneywort (*Lysimachia nummularia*), stinging nettle, reed canary grass (*Phalaris arundinacea*), and poison ivy.

One palustrine emergent wetland was located within the southeastern portion of the Project Area. This wetland was dominated by ditch stonecrop (*Penthorum sedoides*), softstem bulrush (*Schoenoplectus tabernaemontani*), American water plantain (*Alisma subcordatum*), rice cut grass (*Leersia oryzoides*), narrowleaf cattail (*Typha angustifolia*), Pennsylvania smartweed (*Polygonum pensylvanicum*), river bulrush (*Schoenoplectus fluviatilis*), poison hemlock (*Conium maculatum*), and blunt spikerush (*Eleocharis obtusa*).

2.4 HYDROLOGY

The Project Area primarily consisted of a relatively level area. Elevations within the Project Area are mapped to range from approximately 690 feet to 720 feet above mean sea level (AMSL). As depicted in Figure 4, hydrologic features within the Project Area include four wetlands and one open water area. No streams were identified within the Project Area. Northern portions of the Project Area drain generally north towards the Kishwaukee River; southern portions of the Project Area drain generally south towards Kilbuck Creek and an intermittent stream that appears to be hydrologically isolated from other waters of the United States.



2.5 WETLANDS

Four wetlands (Wetland A through Wetland D) were identified in the Project Area (Figure 4). The Midwest Supplement wetland determination data forms are provided in Appendix I and photographs of the wetlands are presented in Appendix II. The wetland identifier, acreage within the Project Area, interpreted classification, and hydrological status are summarized for each wetland in Table 2. Following Table 2 are narrative summaries of each wetland.

TABLE 2 WETLAND CHARACTERISTICS Rockford Solar Field Project Area Rockford, Winnebago County, Illinois			
Wetland Identifier	Approximate Acreage Within Project Area	Classification	Hydrologic Status¹
Wetland A	15.5	PFO/PSS	Connected/Adjacent
Wetland B	6.4	PFO	Connected/Adjacent
Wetland C	4.0	PFO/PSS	Isolated
Wetland D	4.7	PEM	Isolated
TOTAL	30.6	---	--

¹The determinations of hydrologically connected/adjacent and isolated wetlands outlined in this report are preliminary, based on the boundary delineation, and have not been formally approved by the USACE.

Wetland A is a palustrine forested/scrub-shrub wetland located in the southwestern portion of the Project Area that extends outside of the boundary of the Project Area to the south and west. Approximately 15.5 acres of Wetland A are located within the Project boundary. The wetland vegetation is dominated by green ash, silver maple, moneywort, stinging nettle, reed canarygrass, and poison ivy. Wetland A is located in an area identified on the NWI map as PSS/FO1C. Although the portion of Wetland A within the Project boundary does not appear to maintain a direct hydrologic connection to a water of the United States, the NWI map shows Wetland A as a large wetland complex that also encompasses Wetland B and is hydrologically connected to the Kishwaukee River.

Wetland B is a palustrine forested wetland located in the northwestern portion of the Project Area that extends outside of the boundary of the Project Area to the north and west.



Approximately 6.4 acres of Wetland B are located within the Project boundary. The wetland vegetation is dominated by eastern cottonwood, common hackberry, American elm, boxelder, silver maple, moneywort, stinging nettle, and poison ivy. Wetland B is located in an area identified on the NWI map as PFO1C. Although the portion of Wetland B within the Project boundary does not appear to maintain a direct hydrologic connection to a water of the United States, the NWI map shows Wetland B as a large wetland complex that also encompasses Wetland A and is hydrologically connected to the Kishwaukee River.

Wetland C is a palustrine forested/scrub-shrub wetland located in the southeastern portion of the Project Area that extends outside of the boundary of the Project Area to the south. Approximately 4.0 acres of Wetland C are located within the Project boundary. The wetland vegetation is dominated by common hackberry, American elm, boxelder, silver maple, green ash, honey locust, buttonbush, and moneywort. Wetland C encompasses an area identified on the NWI map as PSS1A, although Wetland C is larger than the mapped NWI feature. The portion of Wetland C within the Project boundary does not appear to maintain a direct hydrologic connection to a water of the United States. The USGS topographic map shows an unnamed intermittent stream south of the Project Area adjacent to Wetland C which also appears to be hydrologically isolated from other waters of the United States. Therefore, Wetland C appears to be hydrologically isolated from other waters of the United States.

Wetland D is a palustrine emergent wetland located in the southeastern portion of the Project Area that extends outside of the boundary of the Project Area to the south. Approximately 4.7 acres of Wetland D are located within the Project boundary. The wetland vegetation is dominated by ditch stonecrop, softstem bulrush, American water plantain, rice cut grass, narrowleaf cattail, Pennsylvania smartweed, river bulrush, poison hemlock, and blunt spikerush. An NWI wetland is not mapped in the vicinity of Wetland D. The portion of Wetland D within the Project boundary does not appear to maintain a direct hydrologic connection to a water of the United States. Similar to Wetland C, the USGS topographic map shows an unnamed intermittent stream south of the Project Area adjacent to Wetland D, which also appears to be hydrologically isolated from other waters of the United States. Therefore, Wetland D appears to be hydrologically isolated from other waters of the United States.



2.6 OTHER WATERS

No streams were identified within the Project Area. CEC identified one open water area (OW-1), a small pond, within the southwestern portion of the Project Area north of Wetland A. OW-1 is approximately 1.1 acres in size (Figure 4; Attachment II).



3.0 REGULATORY CONSIDERATIONS

3.1 MEETINGS WITH REGULATORY AGENCIES

No meetings between regulatory agencies and CEC have taken place at the time this report was prepared. The delineation findings presented in this document were developed based upon CEC's professional training and experience, and the results of the July 6th and 7th, 2010, site visits.

3.2 REGULATORY ISSUES

Based on the results of the jurisdictional waters delineation, CEC identified approximately 30.6 acres of wetlands within the Project Area, which includes approximately 21.9 acres of interpreted jurisdictional wetlands and approximately 8.7 acres of interpreted isolated wetlands. Additionally, CEC identified one approximate 1.1 acre open water area within the Project Area. As shown on Figure 4, no wetlands are within the proposed limits of disturbance. Therefore, this wetland acreage is "all inclusive" and appears to include waterbodies that will not be impacted as part of planned site development activities.

If planned site development activities change and impacts to wetlands within the Project Area cannot be avoided, a formal jurisdictional determination (JD) conducted by the USACE would be required to verify CEC's jurisdictional waters delineation findings, prior to permit issuance. The JD may require a site visit by the USACE.

Impacts to jurisdictional wetlands are regulated in Winnebago County, Illinois by the Rock Island District of the USACE, the Illinois Environmental Protection Agency (IEPA), and the Illinois Department of Natural Resources (IDNR). Discharges of dredged or fill material into waters of the United States, as well as relocation of waters of the United States, requires permits from the USACE under the provisions of Section 404 of the Clean Water Act (CWA), as well as Section 401 Water Quality Certification (WQC) from the IEPA Division of Surface Water, and approval from the IDNR Office of Water Resources for construction within a floodway.



To obtain CWA Section 404 and 401 permits, a Joint Application Form must be submitted to the Rock Island District of the USACE, IEPA, and IDNR, which includes owner/applicant information, a project description, adjacent property information, lists of other permits approvals required for the proposed project, a vicinity map, plan view drawings, and cross section drawings. Each agency completes a review of the project concurrently and provides an agency determination to the applicant. The compensatory mitigation for impacts to jurisdictional waters, including wetlands, is also outlined in the permit application documents and then governed by the permits, including following mitigation monitoring and reporting, if required.



4.0 CONCLUSIONS

Four wetlands, totaling approximately 30.6 acres, were identified within the Project Area, which includes approximately 21.9 acres of interpreted jurisdictional wetlands and approximately 8.7 acres of interpreted isolated wetlands. The delineated wetland boundaries were flagged in the field and subsequently located by CEC using Trimble GeoXT GPS survey equipment. Wetland boundaries are shown on Figure 4. No streams were identified within the Project Area. One approximate 1.1 acre open water area was also identified within the Project Area.

As shown on Figure 4, no wetlands are within the proposed limits of disturbance. Therefore, it appears at this time that no Clean Water Act Section 404/401 permits will not be necessary for construction of the Rockford Solar Field. If planned site development activities change and impacts to wetlands within the Project Area cannot be avoided, a formal JD would be required to be conducted by the USACE to verify CEC's jurisdictional waters delineation findings prior to permit issuance.



5.0 LEVEL OF CARE

The jurisdictional waters delineation services performed by CEC were conducted in a manner consistent with the criteria contained in the 1987 Wetland Delineation Manual and the Interim Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region and with the level of care and skill ordinarily exercised by members of the environmental consulting profession practicing contemporaneously under similar conditions in the locality of the project. It must be recognized that the jurisdictional waters delineation was based on field observations and CEC's professional interpretation of the criteria in the 1987 Corps Manual and the Interim Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region at the time of our fieldwork. Jurisdictional waters determinations may change subsequent to CEC's delineation based on changes in the regulatory criteria, seasonal variations in hydrology, alterations to drainage patterns and other human activities and/or land disturbances. Therefore, the findings and opinions are relevant to the dates of our site visits and should not be relied on to represent conditions at substantially later dates. References herein to interpreted jurisdictional waters on the Project Area are the opinion of CEC and are subject to change pending formal review by the USACE, IEPA, and/or IDNR. The actual regulated extent and limits of jurisdictional waters are not established until formally sanctioned by the USACE as part of a Jurisdictional Determination.

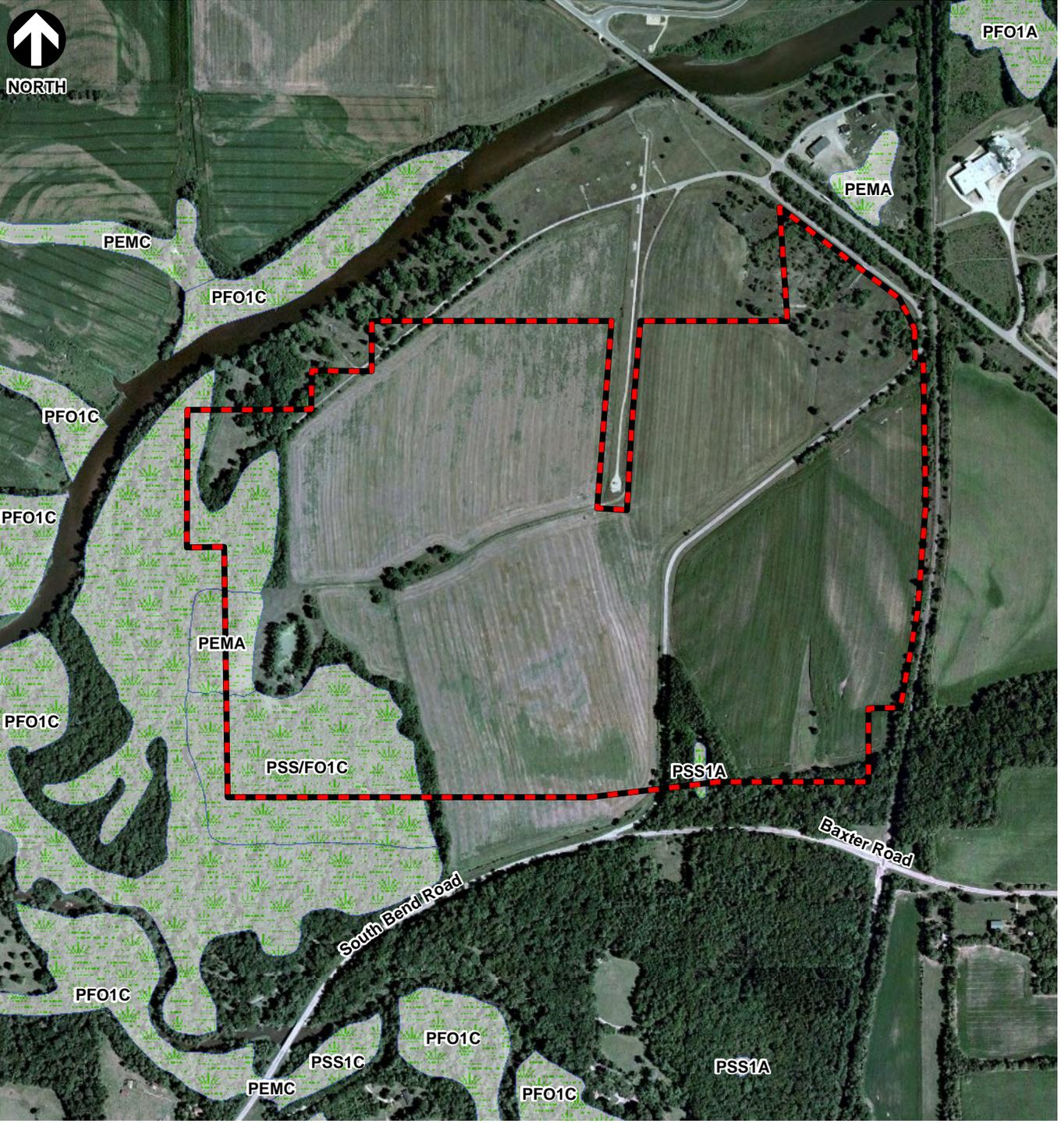
This report is intended for the use of Anderson Environmental & Engineering, Co. and the United States Department of Energy (DOE), consistent with the qualifications outlined herein, and terms and conditions of CEC's proposal. Our services have been performed under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their use of this information.



6.0 REFERENCES

- Cowardin, L. M., V. Carter, and F. C. Golet. 1979. Classification of Wetlands and Deep Water Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service. Washington D. C. FWS/OBS-79/31.
- Reed, Jr., Porter B. 1988. National List of Plant Species that Occur in Wetlands: North Central Region (Region 3). Biological Report 88 (26.1). U.S. Fish and Wildlife Service, Washington, D.C.
- United States Department of Agriculture (USDA), Natural Resources Conservation Service. 2010. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov>. Accessed July 19, 2010.
- U.S. Army Corps of Engineers (USACE), Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers (USACE), Environmental Laboratory. 2008. Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi.

FIGURES



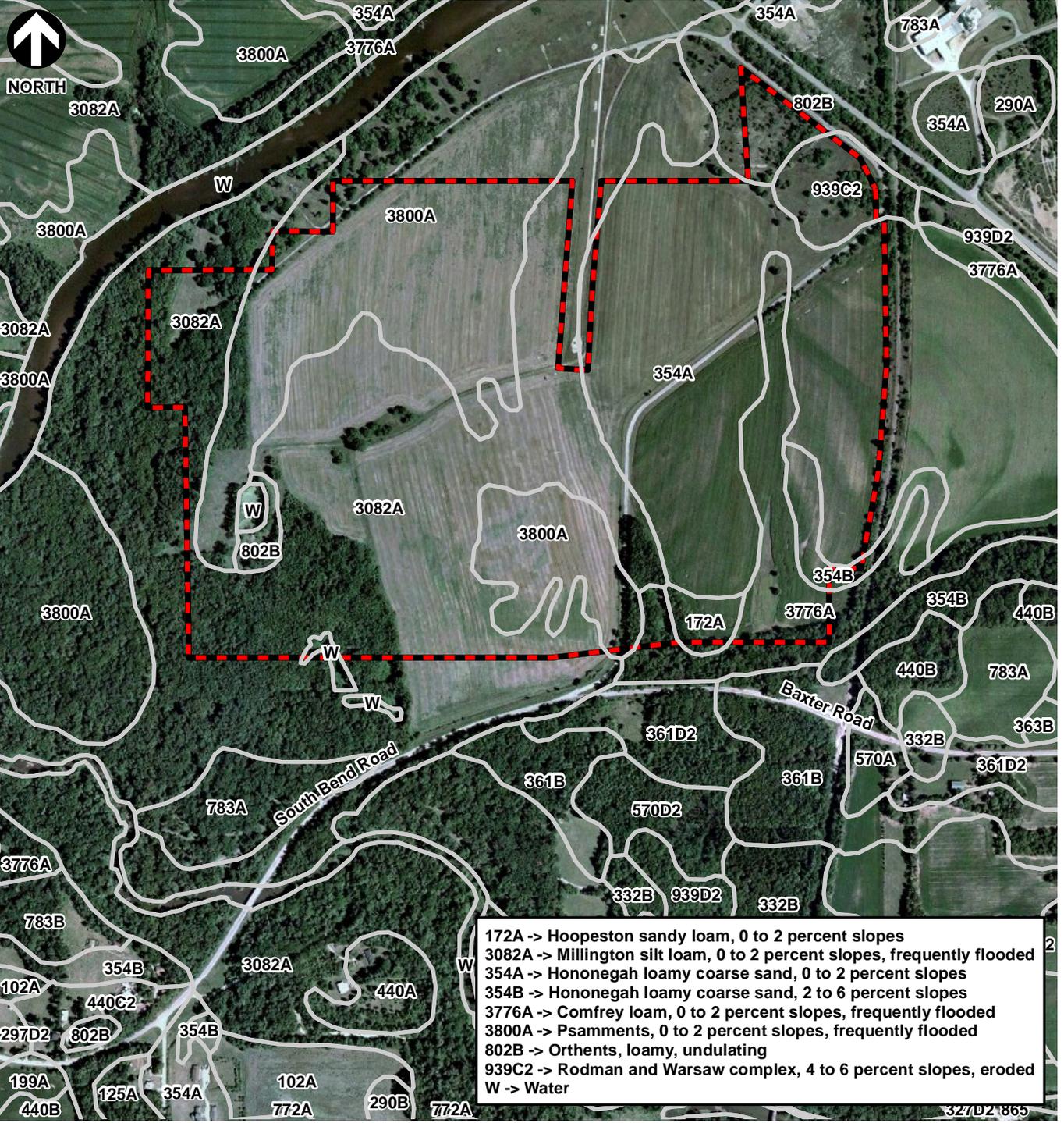
-  National Wetlands Inventory Feature
-  Approximate Site Boundary



SOURCE:
 WETLANDS DATA OBTAINED FROM THE USFWS WEBSITE (http://wetlandsfws.er.usgs.gov/imf/imf.jsp?site=extract_tool), 2010.
 PORTION OF A THE ESRI IMAGE WEBSERVICE - "WORLD_IMAGERY" - "AERIALS EXPRESS CHICAGO 2007."

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 Civil & Environmental Consultants, Inc. Cincinnati, OH (513) 985-0226 (800) 759-5614 Pittsburgh, PA Chicago, IL Cleveland, OH Columbus, OH Detroit, MI Export, PA Indianapolis, IN Nashville, TN St. Louis, MO		National Wetlands Inventory Map ROCKFORD SOLAR FIELD PROJECT		
		South Bend Road & Baxter Road Rockford, Winnebago County, Illinois		
DWN. BY: MJB CHKD. BY: MAVB	SCALE: 1" = 800'	DATE: 08/20/2010	PROJECT NO: 101-114	FIGURE NO: 3



172A -> Hoopston sandy loam, 0 to 2 percent slopes
 3082A -> Millington silt loam, 0 to 2 percent slopes, frequently flooded
 354A -> Hononegah loamy coarse sand, 0 to 2 percent slopes
 354B -> Hononegah loamy coarse sand, 2 to 6 percent slopes
 3776A -> Comfrey loam, 0 to 2 percent slopes, frequently flooded
 3800A -> Psamments, 0 to 2 percent slopes, frequently flooded
 802B -> Orthents, loamy, undulating
 939C2 -> Rodman and Warsaw complex, 4 to 6 percent slopes, eroded
 W -> Water

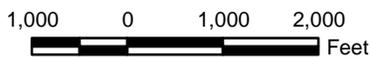
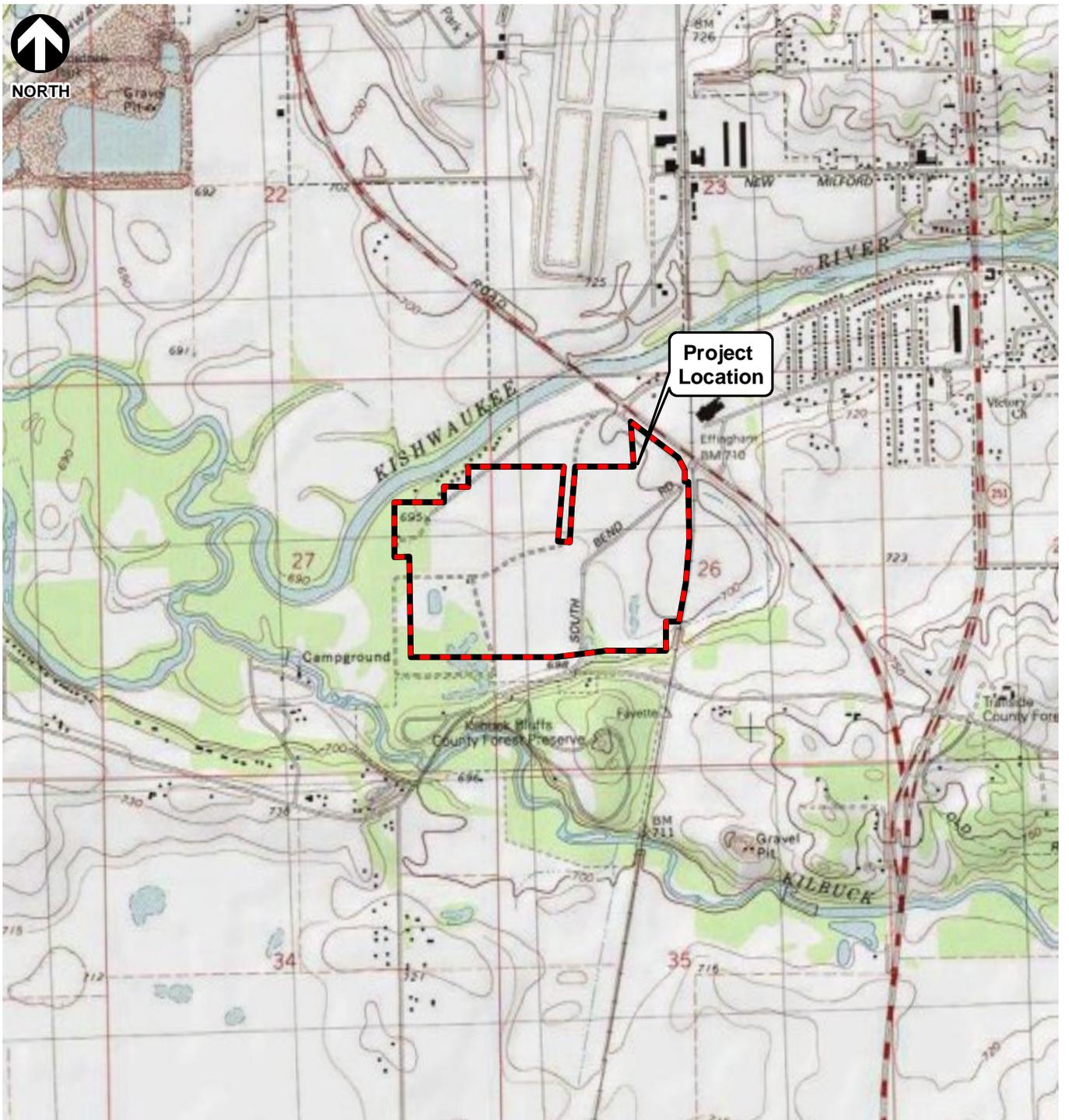
Approximate Site Boundary



SOURCE: SOILS DATA OBTAINED FROM THE USDA NCRS WEBSITE (<http://soildatamart.nrcs.usda.gov/>), 2010.
 PORTION OF A THE ESRI IMAGE WEBSERVICE - "WORLD_IMAGERY" - "AERIALS EXPRESS CHICAGO 2007"

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		USDA Soil Survey Map	
		ROCKFORD SOLAR FIELD PROJECT	
Civil & Environmental Consultants, Inc. Cincinnati, OH (513) 985-0226 (800) 759-5614		South Bend Road & Baxter Road Rockford, Winnebago County, Illinois	
Pittsburgh, PA Export, PA	Chicago, IL Indianapolis, IN	Cleveland, OH Nashville, TN	Columbus, OH St. Louis, MO Detroit, MI Phoenix, AZ
DWN. BY: MJB CHKD. BY: MAVB	SCALE: 1" = 800'	DATE: 08/20/2010	PROJECT NO: 101-114 FIGURE NO: 2



QUADRANGLE LOCATION

SOURCE: PORTION OF THE USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE MAP - ROCKFORD, ILL 1977.



Civil & Environmental Consultants, Inc.
Cincinnati, OH

(513) 985-0226 (800) 759-5614

Pittsburgh, PA Chicago, IL Cleveland, OH Columbus, OH Detroit, MI
Export, PA Indianapolis, IN Nashville, TN St. Louis, MO Phoenix, AZ

Site Location Map

ROCKFORD SOLAR FIELD PROJECT

South Bend Road & Baxter Road
Rockford, Winnebago County, Illinois

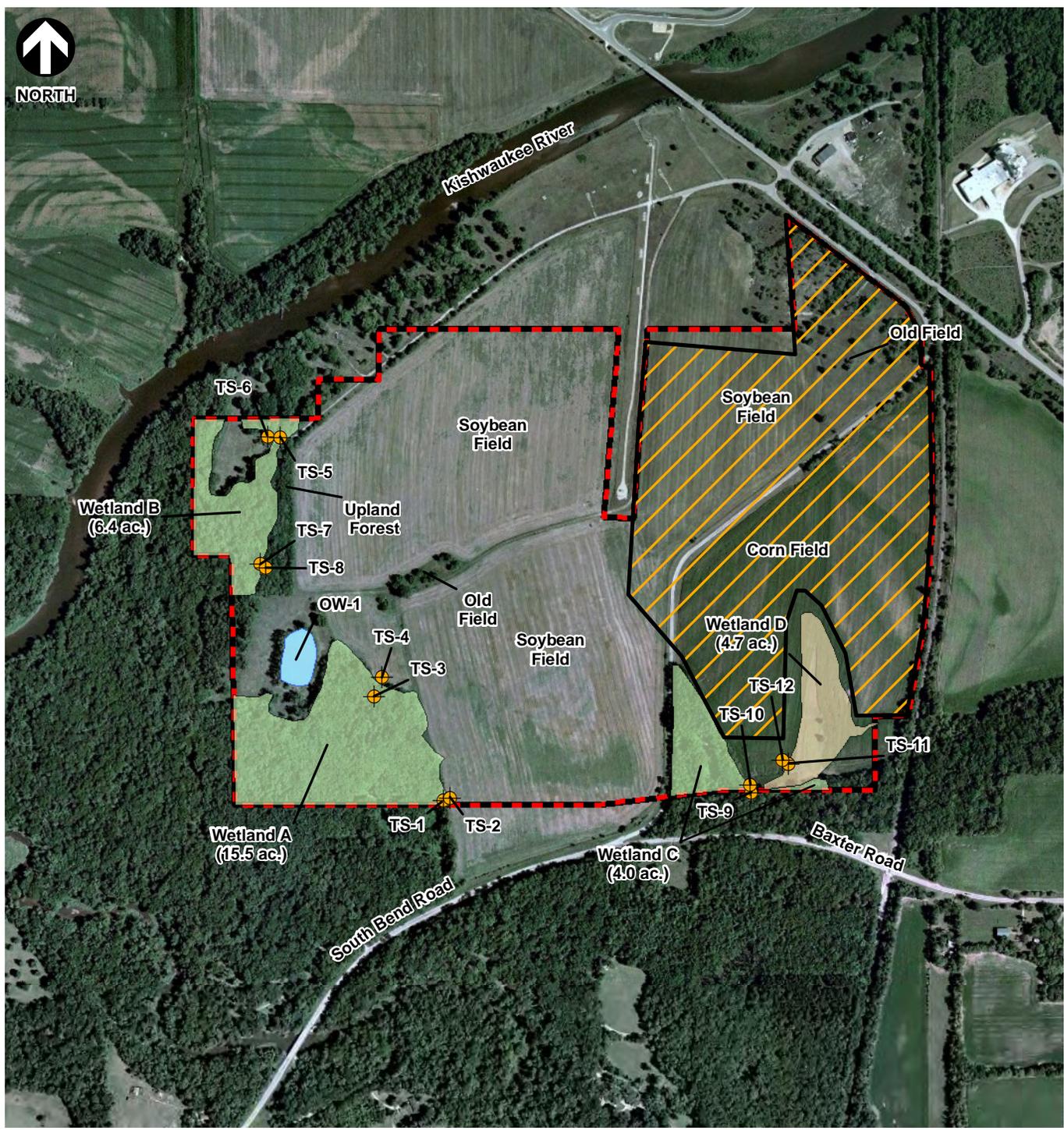
DWN. BY: MJB
CHKD. BY: MAVB

SCALE:
1" = 2,000'

DATE:
08/20/2010

PROJECT NO:
101-114

FIGURE NO:
1



- Wetland Determination Test Pit
- Approximate Open Water Boundary
- Proposed Limits of Disturbance
- Approximate Site Boundary
- Emergent Wetland
- Forested Wetland
- Approximate Wetland Boundary

SOURCE:
 WETLANDS DATA OBTAINED FROM CEC WETLAND SURVEY CONDUCTED ON JULY 6 & 7, 2010.
 PORTION OF A THE ESRI IMAGE WEBSERVICE - "WORLD_IMAGERY" - "AERIALS EXPRESS CHICAGO 2007."



Civil & Environmental Consultants, Inc.
 Cincinnati, OH

(513) 985-0226 (800) 759-5614

Pittsburgh, PA Chicago, IL Cleveland, OH Columbus, OH Detroit, MI
 Export, PA Indianapolis, IN Nashville, TN St. Louis, MO Phoenix, AZ

Jurisdictional Waters Delineation Map
ROCKFORD SOLAR FIELD PROJECT

South Bend Road & Baxter Road
Rockford, Winnebago County, Illinois

DWN. BY: MJB
 CHKD. BY: MAVB

SCALE:
 1" = 800'

DATE:
 08/20/2010

PROJECT NO:
 101-114

FIGURE NO:
 4

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APPENDIX I

MIDWEST SUPPLEMENT WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winneshago Sampling Date: 7 6 2010
 Applicant/Owner: Rockford Solar Partners LLC State: IL Sampling Point: TS-1
 Investigator(s): GJG/PJS Section, Township, Range: 26+27 / 43N / 1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42 16 91 Long: -89 09 26 Datum: _____
 Soil Map Unit Name: Millington silt loam, 0-2% slopes, freq. flooded NWI classification: adjacent to PSS/FOIC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>debris piled in wetlands</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 x 30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharinum</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)
3. <u>Robinia pseudoacacia</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
4. <u>Populus deltoides</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
5. <u>Acer negundo</u>	<u>4</u>	<u>N</u>	<u>FACW</u>	
<u>100</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15 x 15</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cephalanthus occidentalis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Phytolacca floribunda</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
3. <u>Lindera benzoin</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>51</u> = Total Cover				
Herb Stratum (Plot size: <u>5 x 5</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Toxicodendron radicans</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Urtica dioica</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Lysimachia nummularia</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Carex grays</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
5. <u>Phalaris arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Iris versicolor</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
7. <u>Glyceria striata</u>	<u>2</u>	<u>N</u>	<u>OBL</u>	
8. <u>Lemna minor</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	_____ = Total Cover
Remarks: (Include photo numbers here or on a separate sheet.)				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winneshago Sampling Date: 7.6.2010

Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: T3-2

Investigator(s): GJG/PJS Section, Township, Range: 26 & 27 / 43N / 1E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 42.16915 Long: -89.09608 Datum: _____

Soil Map Unit Name: Millington silt loam 0-21 slopes freq flooded (S324) NWI classification: adjacent to PSS/FOIC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5x5</u>)				Hydrophytic Vegetation Indicators:
1. <u>Glycine max</u>	<u>80</u>	<u>Y</u>	<u>NI</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Bromus inermis</u>	<u>20</u>	<u>Y</u>	<u>NI</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

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

SOIL

Sampling Point: TS-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 3/1	100					silt loam	gravel in soil

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)

- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

likely artificial drainage

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- 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 (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (minimum of two required)

- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)
- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- 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): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no hydrologic indicators observed

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Sola Field City/County: Rockford / Winnebago Sampling Date: 7.6.2010

Applicant/Owner: Rockford Sola Partners LLC State: IL Sampling Point: TS-3

Investigator(s): GJS/PJS Section, Township, Range: 26027/43N/1E

Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 42.17093 Long: -89.09756 Datum: _____

Soil Map Unit Name: Mullington silt loam, 0-21 slopes, freq flooded (3082A) NWI classification: adjacent to PSS/FOIC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>87.5%</u> (A/B)
2. <u>Acer saccharinum</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Salix nigra</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
4. <u>Celtis occidentalis</u>	<u>4</u>	<u>N</u>	<u>FAC</u>	
5. <u>Quercus bicolor</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	
<u>100</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>100</u> = Total Cover				
<u>100</u> = Total Cover				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>11</u> = Total Cover				
<u>11</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

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

SOIL

Sampling Point: TS-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	90	10YR 3/3	10			Loam	
8-12	10YR 2/1	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Gauge or Well Data (D9)
	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0-4</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

wetland A point out

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winnebago Sampling Date: 7.6 2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: TS-11
 Investigator(s): GJG/PJS Section, Township, Range: 16 + 27 / 43N / 1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): Concave
 Slope (%): 0 Lat: 42 17120 Long: -89 0973 Datum: _____
 Soil Map Unit Name: Millington silt loam, 0-21 slopes, freq. flooded (3082A) NWI classification: adjacent to PSS/FOIC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5x5</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Glycine max</u>	<u>80</u>	<u>4</u>	<u>NI</u>	
2. <u>Bromus inermis</u>	<u>20</u>	<u>4</u>	<u>NI</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 01 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No

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

SOIL

Sampling Point: TS-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 3/1	100					Silt loam	gravel in soil

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)

- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

likely artificial drainage

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- 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 (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- 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): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no hydrologic indicators observed

wetland B point in

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford / Winnebago Sampling Date: 7.6.2010

Applicant/Owner: Rockford Solar Partners LLC State: IL Sampling Point: TS-5

Investigator(s): GJG / PJS Section, Township, Range: 26 & 27 / 43N / 1E

Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave

Slope (%): 0 Lat: 42.17476 Long: -89.09935 Datum: _____

Soil Map Unit Name: Mullington silt loam, 0-2' slopes, freq flooded (3082A) NWI classification: adjacent to PFOIC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Populus deltoides</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86%</u> (A/B)
2. <u>Celtis occidentalis</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Ulmus americana</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Acer negundo</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
<u>100</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5x5</u>)				
1. <u>Toxicodendron radicans</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Lysimachia nummularia</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
3. <u>Symphoricarpos lanceolatus</u>	<u>5</u>	<u>N</u>	<u>NI</u>	
4. <u>Urtica dioica</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
5. <u>Phalaris arundinacea</u>	<u>4</u>	<u>N</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30x30</u>)				
1. <u>Vitis aestivalis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Smilax sp</u>	<u>5</u>	<u>Y</u>	<u>-</u>	
<u>10</u> = Total Cover				

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford / Winnebago Sampling Date: 7.6.2010
 Applicant/Owner: Rockford Solar Partners LLC State: IL Sampling Point: TS-6
 Investigator(s): GJG / PJS Section, Township, Range: 26 & 27 / 43N / 1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): Concave
 Slope (%): 0 Lat: 42 17483 Long: -89 09941 Datum: _____
 Soil Map Unit Name: Millington silt loam, 0-2% slopes, freq flooded (30%LA) NWI classification: adjacent to PFOIC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Juglans nigra</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
5. _____	_____	_____	_____		
<u>25</u> = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>15x15</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Lonicera maackii</u>	<u>90</u>	<u>Y</u>	<u>NI</u>		
2. <u>Acer negundo</u>	<u>5</u>	<u>N</u>	<u>FACW</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>95</u> = Total Cover					
Herb Stratum (Plot size: <u>5x5</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Artichoke dioica</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>		
2. <u>Viola sororia</u>	<u>5</u>	<u>N</u>	<u>FAC</u>		
3. <u>Geum canadense</u>	<u>5</u>	<u>N</u>	<u>FAC</u>		
4. <u>Toxicodendron radicans</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>		
5. <u>Verbena alterniflora</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
<u>100</u> = Total Cover					
Woody Vine Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Smilax sp</u>	<u>5</u>	<u>Y</u>	<u>-</u>		
2. _____	_____	_____	_____		
<u>5</u> = Total Cover					

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No _____

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

SOIL

Sampling Point: TS-6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10 YR 2/1	100					silt loam	
5-12	10 YR 3/3	60	10 YR 3/1	40			sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Gauge or Well Data (D9)
	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no hydrologic indicators present

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford / Winnebago Sampling Date: 7 6 2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: TS-7
 Investigator(s): GJG / PJS Section, Township, Range: 26 & 27 / 43 N / 1 E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42 17 299 Long: - 89 09 277 Datum: _____
 Soil Map Unit Name: Psarments, 0-2 / slopes, freq flooded (3500K) NMI classification: PFOIC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus bicolor</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Celtis occidentalis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Populus deltoides</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Acer saccharinum</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
5. _____	<u>80</u> = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____ = Total Cover			
<u>Herb Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Lysimachia nummularia</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Delichium arundinaceum</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Carex stricta</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Polygonum virginianum</u>	<u>9</u>	<u>Y</u>	<u>FAC</u>	
5. <u>Scirpus atrovirens</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
6. <u>Glyceria striata</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
7. <u>Lemna minor</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	<u>100</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

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

SOIL

Sampling Point: TS-7

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 2/1	100					silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1-4</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

wetland B point out

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar field City/County: Rockford / Winnebago Sampling Date: 7.6.2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: TS-8
 Investigator(s): GJG / PJS Section, Township, Range: 26027 / 43N / 1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42.17283 Long: -89.0996 Datum: _____
 Soil Map Unit Name: Psamnets, 0-2' slopes, Freq. flooded (3800A) NWI classification: PFA1C
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Celtis laevigata</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)	
2. <u>Juglans nigra</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>10</u> (B)	
3. <u>Quercus bicolor</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. _____					
5. _____					
<u>100</u> = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: <u>15x15</u>)				Total % Cover of: _____ Multiply by: _____	
1. <u>Lonicera maackii</u>	<u>40</u>	<u>Y</u>	<u>NI</u>	OBL species _____ x 1 = _____	
2. <u>Rubus sp.</u>	<u>20</u>	<u>Y</u>	<u>-</u>	FACW species _____ x 2 = _____	
3. _____				FAC species _____ x 3 = _____	
4. _____				FACU species _____ x 4 = _____	
5. _____				UPL species _____ x 5 = _____	
<u>60</u> = Total Cover				Column Totals: _____ (A) _____ (B)	
Herb Stratum (Plot size: <u>5x5</u>)				Prevalence Index = B/A = _____	
1. <u>Parthenocissus quinquefolia</u>	<u>16</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Asarum canadense</u>	<u>16</u>	<u>Y</u>	<u>NI</u>		
3. <u>Polygonum virginianum</u>	<u>16</u>	<u>Y</u>	<u>FAC</u>		
4. <u>Urtica dioica</u>	<u>16</u>	<u>Y</u>	<u>FAC</u>		
5. <u>Blephilia hirsuta</u>	<u>16</u>	<u>Y</u>	<u>FACU</u>		
6. <u>Verbesina alterniflora</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____					
9. _____					
10. _____					
<u>100</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: TS-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 3/2	100					silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 no hydrologic indicators observed

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar field City/County: Rockford/Winnebagos Sampling Date: 7.6.2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: T5-9
 Investigator(s): GJG/PJS Section, Township, Range: 26S27E/43N/1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42.16944 Long: -89.09010 Datum: _____
 Soil Map Unit Name: Hospeston sandy loam, 0-2' slopes (172A) NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer negundo</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Ulmus americana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Acer saccharinum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Gleditsia triacanthos</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
<u>100</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>81</u> = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>81</u> = Total Cover				
<u>81</u> = Total Cover				
<u>81</u> = Total Cover				
<u>81</u> = Total Cover				
<u>81</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
<u>81</u> = Total Cover				

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

Wetland C point out

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winnebag Sampling Date: 7 6 2010
 Applicant/Owner: Rockford Solar Partners LLC State: IL Sampling Point: TS-10
 Investigator(s): GJG/PJS Section, Township, Range: 26 27 43N 1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42.16955 Long: -89.09012 Datum: _____
 Soil Map Unit Name: Hoopeston sandy loam, 0-2/ slopes (172A) NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5x5</u>)				
1. <u>Zebrays</u>	<u>100</u>	<u>4</u>	<u>NI</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
--

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

SOIL

Sampling Point: TS-10

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 3/1						Silty sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Other (Explain In Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> 2 cm Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Gauge or Well Data (D9)
	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no hydrologic indicators present

Wetland D point in

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winnebago Sampling Date: 7.6.2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: TS-11
 Investigator(s): GJG/PJS Section, Township, Range: 26 & 27 / 43 N / 1 E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42.16986 Long: -89.08936 Datum: _____
 Soil Map Unit Name: Confrey loam, 0-2% slopes, freq. flooded (3776A) NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>9</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5x5</u>)				
1. <u>Penthorum sedoides</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Schoenoplectus tabernaemontani</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Alisma subcordatum</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Leersia oryzoides</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
5. <u>Typha angustifolia</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
6. <u>Polygonum pennsylvanicum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
7. <u>Schoenoplectus fluviatilis</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
8. <u>Conium maculatum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
9. <u>Clethra obtusa</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	
10. <u>Cyperus sp</u>	<u>10</u>	<u>Y</u>	<u>-</u>	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

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

SOIL

Sampling Point: TS-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 2/1	100					silt loam	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)				Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)				
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____		
Remarks: _____								

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____			
Remarks: _____			

Wetland To point out

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Rockford Solar Field City/County: Rockford/Winnebago Sampling Date: 7.7.2010
 Applicant/Owner: Rockford Solar Partners, LLC State: IL Sampling Point: TS-12
 Investigator(s): GJG/PJS Section, Township, Range: 26027/43N/1E
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 42.16991 Long: -99.08948 Datum: _____
 Soil Map Unit Name: Comfrey loam, 0-2% slopes, freq flooded (376A) NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0%</u> (A/B)
4. _____					
5. _____					
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____				OBL species _____	x 1 = _____
2. _____				FACW species _____	x 2 = _____
3. _____				FAC species _____	x 3 = _____
4. _____				FACU species _____	x 4 = _____
5. _____				UPL species _____	x 5 = _____
_____ = Total Cover				Column Totals:	_____ (A) _____ (B)
Herb Stratum (Plot size: <u>5x5</u>)				Prevalence Index = B/A = _____	
1. <u>Zea mays</u>	<u>100</u>	<u>4</u>	<u>NI</u>	Hydrophytic Vegetation Indicators:	
2. _____				___ Dominance Test is >50%	
3. _____				___ Prevalence Index is ≤3.0 ¹	
4. _____				___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____					
8. _____					
9. _____					
10. _____					
<u>100</u> = Total Cover				Hydrophytic Vegetation Present?	
Woody Vine Stratum (Plot size: _____)				Yes _____ No <input checked="" type="checkbox"/>	
1. _____					
2. _____					
_____ = Total Cover					

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

SOIL

Sampling Point: TS-12

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 Y e 2/2	100					sandy loam	gravel in soil

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no hydrologic indicators present

APPENDIX II

SITE PHOTOGRAPHS

Photographic Record



Photo 1 – View of TS-1.



Photo 2 – Representative view of Wetland A. Photo taken facing west.

Photographic Record



Photo 3 – Representative view of Wetland A. Photo taken facing north from TS-3.



Photo 4 – View of TS-3.

Photographic Record



Photo 5 – View of TS-5.



Photo 6 – Representative view of Wetland B. Photo taken facing south.

Photographic Record



Photo 7 – Representative view of Wetland B. Photo taken facing south.



Photo 8 – View of TS-7.

Photographic Record



Photo 9 – View of TS-9.

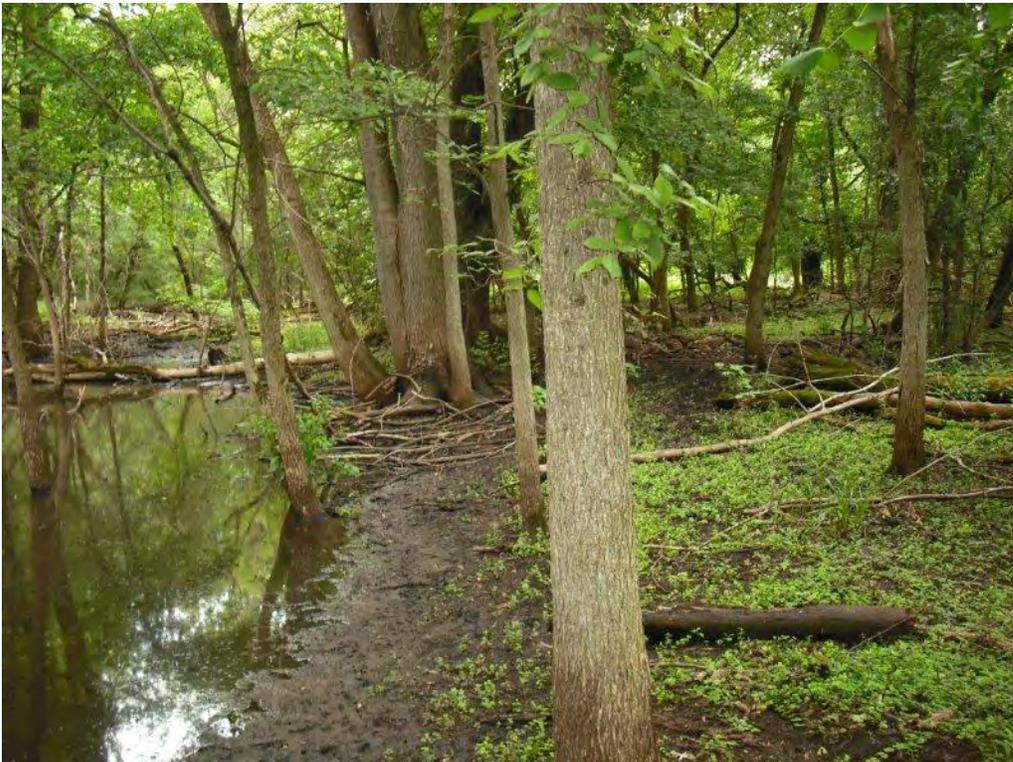


Photo 10 – Representative view of Wetland C. Photo taken facing west.

Photographic Record



Photo 11 – Representative view of Wetland C. Photo taken facing north.



Photo 12 – View of TS-11.

Photographic Record



Photo 13 – Representative view of Wetland D. Photo taken facing south.



Photo 14 – Representative view of Wetland D. Photo taken facing east.

Photographic Record



Photo 15 – Representative view of OW-1.



Photo 16 – View of TS-2.

Photographic Record



Photo 17 – View of TS-4.



Photo 18 – View of TS-6.

Photographic Record



Photo 19 – View of TS-8.



Photo 20 – Representative view of agricultural land. Photo taken facing west.

Photographic Record



Photo 21 – View of TS-10.



Photo 22 – View of TS-12.

Photographic Record



Photo 23 – Representative view of upland forest. Photo taken facing north.



Photo 24 – Representative view of old field vegetation. Photo taken facing northwest.