



February 28, 2011

Ms. Amber Address
U.S. Fish & Wildlife Service
Rock Island Ecological Services Field Office
1511 47th Ave.
Moline, IL 61265

Dear Ms. Address:

Subject: Potential Indiana Bat Roost Tree Survey
Proposed Rockford Solar Field Project
Rockford, Winnebago County, Illinois
CEC Project No. 110-269

On behalf of our client, Anderson Environmental and Engineering, Co. (AE&E), Civil & Environmental Consultants, Inc. (CEC) has prepared the following letter report documenting the results of a potential Indiana bat (*Myotis sodalis*) roost tree survey conducted within the Proposed Rockford Solar Field Project area (the Project Area), located in Winnebago County, Illinois (Figure 1). The Project Area is located south of Chicago Rockford International Airport and the Kishwaukee River, north of the intersection of the South Bend Road and Baxter Road (Figure 1). Opinions presented in this letter report were developed based upon the site observations made on February 16, 2011, and available information.

The proposed Rockford Solar Field Project will consist of the construction of a solar power generating facility to provide affordable and renewable energy to residential, commercial, and industrial customers within the Rockford area. The majority of the land that will be disturbed by the Project consists of active agricultural row crop fields. Additionally, one old field area with scattered trees, approximately 12 acres in size, is located within the proposed limits of disturbance.

To demonstrate compliance with the Endangered Species Act as part of a National Environmental Policy Act Environmental Assessment that was prepared by AE&E for the Project, CEC initially prepared a threatened and endangered species habitat assessment report for

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Chicago	887/963-6026	Indianapolis	877/746-0749
Cleveland	866/507-2324	Nashville	800/763-2326
Columbus	888/598-6808	Phoenix	602/953-7705
Detroit	866/380-2324	St. Louis	866/250-3679



the Project Area and submitted it to your office on August 20, 2010. In this report, CEC stated that the proposed Project may affect, but would not adversely affect, the Indiana bat provided that tree clearing activities occur during the October 15 to March 31 time period. In a letter dated October 19, 2010, the U.S. Fish & Wildlife Service (USFWS) concurred with this effect determination for the Indiana bat and specified that tree clearing activities be conducted outside the maternity season for the Indiana bat, which occurs between April 1 and September 30 in Illinois.

CEC was recently contacted by AE&E and made aware that, because of delays in the implementation of Project construction activities, it may be necessary that trees be cleared within the Project Area between April 1 and September 30. CEC subsequently contacted you via telephone on February 14, 2011, in order to request concurrence that trees within the Project Area could be cleared between April 1 and September 30, provided that none of the trees were potential Indiana bat roost trees. During this telephone conversation, CEC proposed conducting a site visit to the Project Area in order to determine if potential Indiana bat roost trees are present within the limits of disturbance associated with the Project. You stated that this would be acceptable and that trees could be cleared between April 1 and September 30, provided that the results of the potential Indiana bat roost tree survey indicated that none of the trees were potentially suitable roost trees.

CEC conducted a site visit to the Project Area on February 16, 2011, in order to determine if potential Indiana bat roost trees were present within the proposed limits of disturbance and, if applicable, to record the locations of potentially suitable Indiana bat roost trees observed. Below, please find the results from our site visit.

Figure 2 shows the locations of forested areas within the Project Area. Two areas of forest are present within the Project Area and include early successional mixed hardwood forest habitat (Forest 1) and early successional fencerow habitat (Fencerow 1). Forested habitat data sheets for each of these forested areas within the Project Area are provided in Attachment II and contain a list of the dominant canopy, shrub and herbaceous species, as well as information about canopy cover and understory density. Representative photographs of each of these forested areas are provided in Attachment I.



Forest 1 is an open stand of deciduous woodland present within an old field area in the northeastern portion of the Project Area. The dominant tree species within Forest 1 include Eastern cottonwood (*Populus deltoids*), slippery elm (*Ulmus rubra*), hackberry (*Celtis occidentalis*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), pin oak (*Quercus palustris*), and white ash (*Fraxinus americana*). Understory tree and shrub species common within Forest 1 include eastern red cedar (*Juniperus virginiana*), Amur honeysuckle (*Lonicera maackii*), staghorn sumac (*Rhus typhina*), hawthorn (*Crataegus* sp.), and saplings of tree species found in the canopy. Common understory species include Queen Ann's lace (*Daucus carota*), common mullein (*Verbascum thapsus*), poison ivy (*Toxicodendron radicans*), goldenrod (*Solidago* spp.), and vervain (*Verbena* sp.). The average canopy cover within Forest 1 is approximately 60 percent, while the understory density is variable, averaging 25 to 50 percent. Representative photographs of Forest 1 are provided in Attachment I.

Fencerow 1 is an early successional fencerow that is located along the eastern boundary of the Project Area. It is dominated by boxelder (*Acer negundo*), honey locust (*Gleditsia tricanthos*), hackberry, black cherry (*Prunus serotina*), red maple, and hawthorn in the overstory, with the understory being dominated by Amur honeysuckle, goldenrod, Queen Ann's lace, common mullein, poison ivy, and milkweed. The average canopy cover of Fencerow 1 is approximately 5 to 10 percent, while the average understory density is between 25 and 50 percent. Representative photographs of Fencerow 1 are provided in Attachment I.

CEC biologist Mary Gilmore conducted a pedestrian survey of forested areas within the Project Area on February 16, 2011, in order to record the locations of potentially suitable Indiana bat roost trees. Figure 2 shows the locations of potentially suitable roost trees identified during the survey. Table I contains information about each of the potential roost trees. Representative photographs of the potential roost trees are provided in Attachment I.

A total of two potential Indiana bat roost trees were identified within the Project Area. Both potential roost trees were identified as slippery elm and were present within Forest 1. These potential roost trees are of relatively low quality. Data forms completed for each of these trees are provided as Attachment III. The approximate locations of these trees are shown on Figure 2

Ms. Amber Andress – U.S. Fish & Wildlife Service
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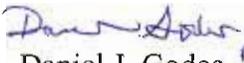
and are based on GPS coordinates collected by CEC during the pedestrian survey using a handheld GPS unit (sub-meter accuracy).

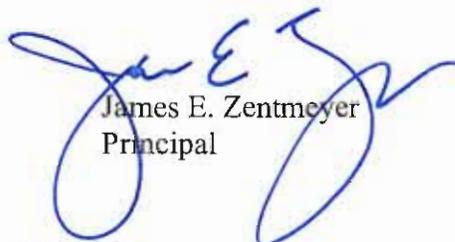
As stated, the Project Area primarily consists of active agricultural row crop fields. No streams or rivers are present within the Project Area.

On behalf of our client, AE&E, CEC respectfully requests your concurrence that trees within the Project Area may be cleared during any time of year, including the April 1 to September 30 time period, with the exception of the two potential Indiana bat roost trees identified by CEC. Those potential Indiana bat roost trees will be cleared outside of the April 1 to September 30 time period, or during this time period if a two-night emergence count is conducted by a qualified bat biologist and no bats are observed exiting those two trees. If you have any questions or require additional information, please contact the undersigned at 513-985-0226.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

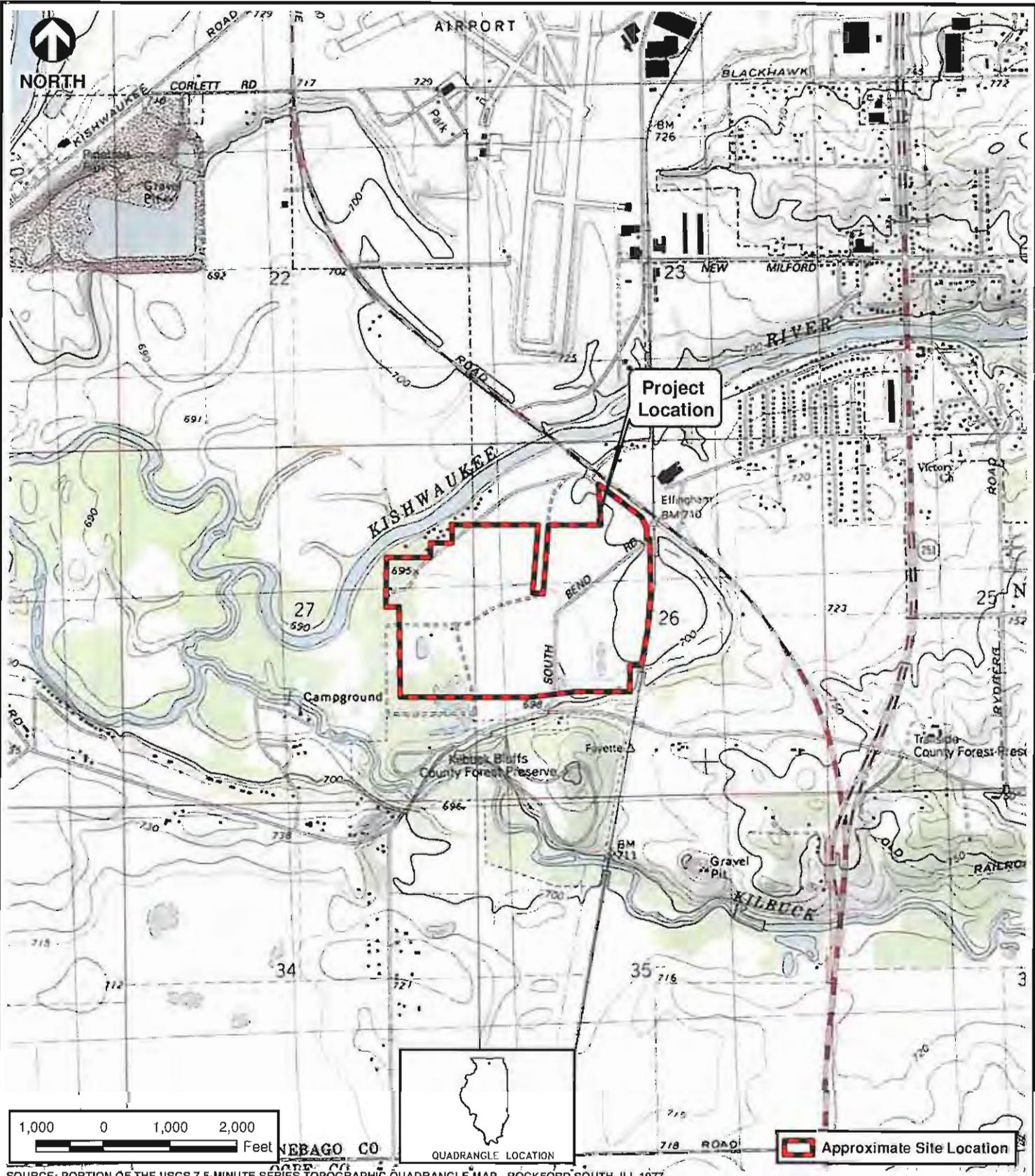

Daniel J. Godec
Project Manager


James E. Zentmeyer
Principal

- Attachment: Figure 1 – Site Location Map
Figure 2 – Potential Indiana Bat Roost Tree Map
Attachment I – Site Photographs
Attachment II – Forested Habitat Data Sheets
Attachment III – Potential Indiana Bat Roost Tree Data Sheets
Table 1 – Potential Indiana Bat Roost Tree Information

cc: Jennifer Anderson, AE&E

FIGURES



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



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SITE LOCATION MAP

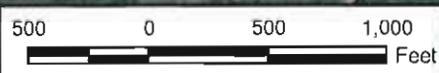
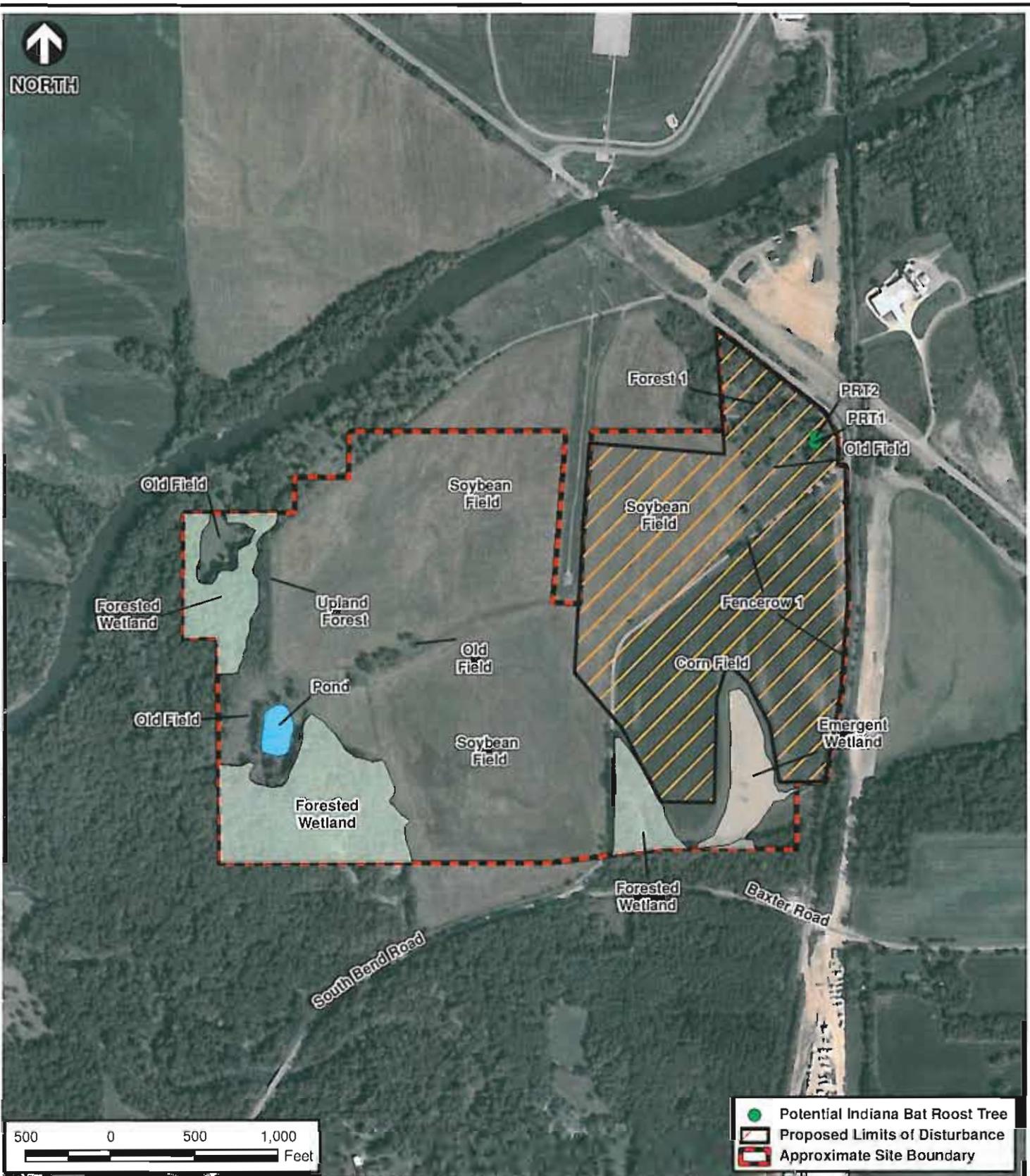
DRAWN BY: MJB	CHECKED BY: DJG	APPROVED BY: JEZ*	FIGURE NO:
DATE: FEBRUARY 22, 2011	DWG SCALE: 1" = 2,000'	PROJECT NO: 110-269	1

Signature on File *

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NORTH



- Potential Indiana Bat Roost Tree
- Proposed Limits of Disturbance
- Approximate Site Boundary

SOURCE: PORTION OF THE ESRI ARCGIS ONLINE MAPPING SERVICE - "WORLD_MAPSERV" - Aerials Express - CHICAGO - 2009.



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POTENTIAL INDIANA BAT ROOST TREE MAP

DRAWN BY: MJB	CHECKED BY: DJG	APPROVED BY: JEZ*	FIGURE NO: 2
DATE: FEBRUARY 22, 2011	DWG SCALE: 1" = 800'	PROJECT NO: 110-269	

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ATTACHMENT I

SITE PHOTOGRAPHS



Photograph 1. View of early successional mixed hardwood forest (Forest 1). Photo taken facing southeast.



Photograph 2. View of early successional mixed forest (Forest 1). Photo taken facing west.

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Photographs Taken on February 16, 2011



Photograph 3. View of early successional mixed hardwood forest (Forest 1). Photo taken facing east.



Photograph 4. View of early successional mixed hardwood forest (Forest 1). Photo taken facing south.

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Photograph 5. View of fencerow habitat (Fencerow 1). Photo taken facing north.



Photograph 6. View of fencerow habitat (Fencerow 1). Photo taken facing south.

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Photograph 7. View of potential Indiana bat roost tree (PRT-1) in early successional mixed hardwood forest habitat (Forest 1) in northeast portion of the Project Area. Photo taken facing west.



Photograph 8. View of potential Indiana bat roost tree (PRT-2) in early successional mixed hardwood forest habitat (Forest 1) in northeast portion of the Project Area. Photo taken facing northwest.

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Photograph 9. Representative view agricultural field and early successional fencerow habitat (Fencerow 1) from the southeast corner of the site. Photo taken facing northwest.

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Rockford Solar Field Project Area
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Photographs Taken on February 16, 2011

ATTACHMENT II

FORESTED HABITAT DATA SHEETS

Rockford Solar Indiana Bat Habitat Assessment
Forested Habitat Data Sheet

Surveyor(s): Mary Gilmore Date: 2/16/2011

Forest Type: Mixed hardwood, with occasional Identification Number: Forest 1

Photo Numbers: 1, 2, 5, 8, 9.

Location (State/County/GPS Data): Rockford, Winnebago Co., IL GPS point

Dominant Species Present:

Canopy: eastern white pine, slippery elm, pin oak, hickory, red maple, white oak

Shrub: red cedar, slippery elm, cottonwood, honey suckle, staghorn sumac, CRATAEGUS sp.

Herbaceous: Solidago spp., queen anne's lace, vervain, common milkweed, poison ivy

Average Percent Canopy Cover: 50% Understory Density: 25-50%

Water Features Within Survey Area: none observed

Potential Indiana Bat Roost Trees Present: 2 slippery elms

Comments:

Rockford Solar Indiana Bat Habitat Assessment
Forested Habitat Data Sheet

Surveyor(s): Mandy Gillmore Date: 8/16/2011

Forest Type: Tree Line Identification Number: Fencerow

Photo Numbers: 3,4

Location (State/County/GPS Data): IL, Rockford, Wilhamsburg, GPS point 1414

Dominant Species Present:

Canopy: B. Cherry, F. maple, hickory, sweet gum, box-elder, honey locust

Shrub:

Herbaceous: milkweed, goldenrod, queen anne's lace, common yarrow, poison ivy

Average Percent Canopy Cover: 5-10% Understory Density: 25-50%

Water Features Within Survey Area:

Potential Indiana Bat Roost Trees Present: 0

Comments: scattered dead, white oaks to S of tree line by road/junction. tree inventory

ATTACHMENT III

POTENTIAL INDIANA BAT ROOST TREE DATA SHEETS

Rockford Solar Indiana Bat Habitat Assessment
Indiana Bat Roost Tree Identification Data Form

Surveyor(s): M. Gilmore Date: 02/16/2011

Roost Tree Identification Number: PRT1 Forest Type: was disturbed early successional

Forested Habitat Identification Number: Forest 1

Status of Tree (circle): Living / Dead Tree Species: Shagbark Elm (ulmus vrbra)

DBH (circle): < 4" 4-8" 8-12" 12-16" 16-20" >20"

Proximity to Water Features: Wetlands and pond, over 1/4 mile away Kishwaukee River north-west of site

Understory Density (circle): 0-25% 25-50% 50-75% 75-100%
 Midstory Density (circle): 0-25% 25-50% 50-75% 75-100%
 Canopy Cover (circle): 0-25% 25-50% 50-75% 75-100%

Location (State/County/GPS Data): PRT1, Rockford, Winnebago County IL

Comments: Dying, broken limbs, small cavities, ex. part (0.5%)
pic #6

Rockford Solar Indiana Bat Habitat Assessment
Indiana Bat Roost Tree Identification Data Form

Surveyor(s): M Gilmore Date: 11/16/2010

Roost Tree Identification Number: PRT2 Forest Type: Mixed hardwood
eastly succession

Forested Habitat Identification Number: Forst1

Status of Tree (circle): (Living) / Dead Tree Species: Slippery elm (Ulmus rubra)

DBH (circle): < 4" 4-8" 8-12" 12-16" 16-20" >20"

Proximity to Water Features: Wetlands and pond over 1/4 mile away, Kishwaukee River North + west of site.

Understory Density (circle): 0-25% 25-50% (50-75%) 75-100%
Midstory Density (circle): (0-25%) 25-50% 50-75% 75-100%
Canopy Cover (circle): (0-25%) 25-50% 50-75% 75-100%

Location (State/County/GPS Data): PRT2 Rockford, Winnebago Co., Illinois

Comments: dying, broken limbs, peeling bark (15-20')

Photo# -7

TABLE I

POTENTIAL INDIANA BAT ROOST TREE INFORMATION

Table 1. Potential Indiana Bat Roost Tree Information

Potential Roost Tree Number	To Be Preserved or Removed?	Species	Estimated % Canopy Cover	Alive or Dead?	Dbh	Comment
PRT-1	Removed	Slippery elm	0 - 25 %	Alive	> 20 in.	broken limbs, small cavities, peeling bark
PRT-2	Removed	Slippery elm	0 - 25 %	Alive	> 20 in.	broken limbs, peeling barks