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### Illinois Department of Natural Resources

One Natural Resources Way - Springfield, Illinois 62702-1271  
http://dnr.state.il.us

Rod R. Blagojevich, Governor  
Joel Brunsvold, Director

### CONSULTATION AGENCY ACTION REPORT

(Illinois Administrative Code Title 17 Part 1075)  
Division of Resource Review and Coordination  
Todd Rettig, Division Manager

Date Submitted: 18-MAY-2006  
If this is a resubmittal, include previous IDNR response if available.

FOR DEPARTMENT USE ONLY  
PROJCODE: \_\_\_\_\_ DUE DATE: \_\_\_\_\_

Applicant: University of Illinois at Urbana-Champaign Phone: (217) 244-1324  
Contact Person: Matt Malten Fax: (217) 333-4294  
Applicant Address: 1501 S. Oak Street MC-800 Email: malten@uiuc.edu  
Champaign, IL 61820-6905

LOCATION OF PROPOSED ACTION  
A MAP SHOWING LOCATION OF PROPOSED ACTION IS REQUIRED

Project Name: UIUC WIND TURBINE PROJECT County: CHAMPAIGN  
Project Address (if available): Campus South Farms  
City, State, Zip: Urbana, Illinois  
Township/Range/Section (e.g. T45N, R9E, S2): SECTION 33 / TOWNSHIP 19 NORTH / RANGE 9 EAST  
Brief Description of Proposed Action: The University of Illinois at Urbana-Champaign plans to install three (3), 1.5 megawatt (MW) wind turbines on the campus South Farms.  
Projected Start Date and End Date of Proposed Action: PROJECTED CONSTRUCTION PHASE: 5/24/07 - 1/22/08  
Will state funds or technical assistance support this action?  Yes | No | If Yes, the Interagency Wetland Policy Act may apply.  
The University of Illinois at Urbana-Champaign will provide some funding. Contact funding agency or this Division for details.

Local/State Agency with Project Jurisdiction: University of Illinois at Urbana-Champaign  
Contact: Kevin Duff Phone: (217) 244-0344  
Address: 1501 S. Oak Street, Champaign, IL 61820 Fax: \_\_\_\_\_

FOR DEPARTMENT USE ONLY

Are endangered/threatened species or Natural Areas present in the vicinity of the action? [ Yes | No ]  
Could the proposed action adversely affect the endangered/threatened species or Natural Area? [ Yes | No ]  
Is consultation terminated? [ Yes | No ]  
Comments: \_\_\_\_\_



# Illinois Department of Natural Resources

One Natural Resources Way • Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

Code 06-05029

Rod R. Blagojevich, Governor

Sam Flood, Acting Director

July 6, 2006

Mr. Matthew B. Malten, Sustainability Coordinator  
University of Illinois at Champaign-Urbana  
1501 S. Oak St., MC-800  
Champaign, IL 67820-6905

**RE: UIUC Wind Turbine Project, Champaign, Champaign County  
Endangered Species Consultation Program  
Natural Heritage Database Review #06-05029**

Dear Mr. Malten:

Thank you for submitting this proposed action in Section 33, Township 19 North, Range 9 East, for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action is located in the vicinity of records for the State-listed endangered **Upland Sandpiper**, *Bartramia longicauda*, and the State-listed threatened **Franklin's Ground Squirrel**, *Spermophilus franklinii*. The proposed action is also in the vicinity of the **Barnhart Prairie Illinois Natural Areas Inventory (INAI) Site**. Additional information is needed to evaluate the potential for adverse effects to these resources.

Also, the proposed action will be subject to the terms of the *Interagency Wetland Policy Act of 1989* [20 ILCS 830] and Title 17 *Il. Admin. Code* 1090. Additional information about the proposed location is needed to evaluate the applicability of this statute.

**Consequently, consultation must remain open at this time.** Please complete and return the enclosed Detailed Action Report, along with any information you believe will aid an assessment of potential adverse impacts.

The Department recommends biological surveys for these species. The Upland Sandpiper may breed anywhere appropriate grassland habitat of sufficient size exists. This species engages in aerial courtship displays at altitudes which may place it at risk from wind turbine blades.

The Franklin's Ground Squirrel is known from Barnhart Prairie INAI, just south of the project area, and two other locations south of Champaign. Juveniles of this species are thought to disperse up to a mile from their birth territory, and they may occur wherever appropriate habitat exists. This species hibernates for up to seven months of the year and remains below the ground surface for much of its active period. It may share habitat with the more common **Thirteen-Lined Ground Squirrel**, *Spermophilus tridecemlineatus*, whose burrows are very similar. Close observation and/or trapping may be necessary to determine whether the Franklin's Ground Squirrel is present. Persons attempting to survey for this species using any method which may result in the capture or injury of this species must be authorized to do so by the Department pursuant to Part 1070.

Barnhart Prairie INAI is so designated because it provides suitable specific habitat for the Franklin's Ground Squirrel. Direct or indirect adverse effects to Barnhart Prairie are not anticipated. In 2002, the colony there appeared to number about 20 adults and 11 juveniles; half of the latter dispersed elsewhere that year.

The Interagency Wetland Policy Act of 1989 governs direct and indirect adverse impacts to Illinois wetlands of nearly any size. Because it has no relationship to the federal Clean Water Act or any other federal statute, determinations of jurisdiction by the USDA or the US Army Corps of Engineers do not affect this statute's applicability. "Prior-converted" or "farmed" wetlands not regulated at the federal level plus other "historic" wetlands which may be permanently converted or destroyed by this project are jurisdictional for purposes of the IWPA.

The Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of significant natural features in any specific location; consultation cannot replace detailed site surveys. The Department is unable to state that no listed species exist within the project footprint, nor can it exclude the possibility that listed species other than those mentioned exist in the vicinity. Should a protected species be encountered during project implementation, compliance with applicable statutes and regulations is required.

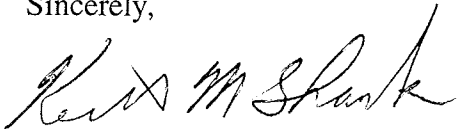
Consultation is limited to State-listed threatened or endangered species, Illinois Natural Areas, and dedicated Land & Water Reserves and Nature Preserves; it does not entail a comprehensive environmental impact assessment. The Department may raise concerns through other venues regarding potential impacts to other natural resources as it deems appropriate.

Should you need additional information regarding the consultation process, or should you have any questions, please do not hesitate to contact me.

Mr. Matthew B. Malten, University of Illinois at Champaign-Urbana  
UIUC Wind Turbine Project  
July 6, 2006

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Sincerely,



Keith M. Shank  
Impact Assessment Section  
Division of Ecosystems & Environment  
Ph. (217) 785-5500  
Fax (217) 524-4177  
keith.shank@illinois.gov

cc: Eric Smith, IDNR/Region III/Natural Heritage  
Dan Newhouse, IDNR/Region III/Wildlife



# Illinois Department of Natural Resources

One Natural Resources Way • Springfield, Illinois 62702-1271  
http://dnr.state.il.us

Rod R. Blagojevich, Governor

Sam Flood, Acting Director

## ENDANGERED SPECIES CONSULTATION PROGRAM DETAILED ACTION REPORT

Date Submitted: \_\_\_\_\_

**PROJCODE: 06-05029**

**Date Due:** \_\_\_\_\_

For Office Use Only

Agency Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Agency Address: \_\_\_\_\_  
\_\_\_\_\_

### Project Description

Project Name (if any): \_\_\_\_\_

Project Location: Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ County: \_\_\_\_\_

\*Please enclose an area map with the project site clearly delineated. An appropriate **scale** and **legend** should accompany this map.

Total Number of Acres in Project Area: \_\_\_\_\_

Estimated Starting/Completion Dates: \_\_\_\_\_

Brief Description of Proposed Action: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please mark the appropriate response for each of the items below:

Water Supply: private wells \_\_\_\_\_  
community well \_\_\_\_\_  
public system \_\_\_\_\_

Waste Treatment: individual septic systems \_\_\_\_\_  
private treatment facility \_\_\_\_\_  
public treatment facility \_\_\_\_\_

**Return this report with a copy of each of the items listed below (if available):**

Subdivision Plat	_____
County Natural Resource Inventory Report	_____ X _____
Drainage Plan/Runoff Control System(s)	_____ X _____
Detailed Erosion Control Procedures	_____ X _____
Existing & Proposed Topographic Contours	_____
List of Landscaping Plant Species	_____
Surrounding Land-Use Photography	_____
Wetland Delineation Report	_____ X _____
Wetland Mitigation Plan	_____
U.S. Army Corps of Engineers Correspondence	_____
Restrictive Deeds/Conservation Easement Plans	_____
Homeowner Covenants and Restrictions	_____
Percolation Test Results	_____
Soil Boring Data	_____
Tree Inventory/Protection Plan	_____

**Other: Biological surveys adequate to ascertain whether Upland Sandpiper or Franklin's Ground Squirrel are present near or within the footprint of proposed turbines and related facilities locations; and wetland delineations sufficient to determine the presence of any wetlands which are jurisdictional under the Interagency Wetland Policy Act of 1989. Indicate whether post-construction management to promote habitat for the Franklin's Ground Squirrel within the facility footprint is feasible.**

What measures have been, **or can be**, included in the project plans to minimize adverse effects to endangered or threatened species or natural areas/nature preserves? (Use additional pages if necessary)

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Completion of the consultation requirement is mandatory before any State agency and/or local unit of government performs, funds, or approves any environment-altering activity. To facilitate effective coordination, please identify all agencies/local governments involved in the project, including primary contact persons, and indicate each agency's/local government's respective role in the project.

<u>Agency/Municipality</u>	<u>Contact Person</u>	<u>Perform</u>	<u>Fund</u>	<u>Approve</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**\*Please send all materials to:\***

Endangered Species Consultation Program  
 Division of Ecosystems & Environment  
 Illinois Department of Natural Resources  
 One Natural Resources Way  
 Springfield, Illinois 62702-1271



## Wetland Report

To: Matthew Malten  
From: Allen Plocher, Dennis Keene, Brad Zercher  
Date: 25 August 2006  
Re: Wetland Determinations – University of Illinois Wind Farm Project  
Champaign County, IL

Date Investigated: 15, 21 August 2006

### Project Description:

The project area for the proposed Wind Farm project, in Champaign County, IL (legal location T. 19 N., R. 8 E., Sect. 33, W/2), was surveyed for the occurrence of potential wetlands. This 32.4 ha (80 acre) project area consists of agricultural land. Approximately 16.2 ha (40 acres) were in alfalfa, and slightly less (16 ha?) was in corn. In addition, a small grassy area around two farm buildings, a grass waterway, and several grass field borders were present. The National Wetland Inventory maps no wetlands on the site. The NRCS codes the area as PC/NW (prior converted cropland/nonwetland), reflecting that part of the area supports non-hydric soils and part supports hydric soils that have been drained for agricultural purposes. Our field investigations, for the most part, verify this assessment: 2/3 of the area supports non-hydric soils and 1/3 supports hydric soils that appear to be effectively drained by grass waterways, field tiles and ditches. We found that one small area at the corner of a crop field met the criteria of wetlands. The following sources were examined while surveying the project area to determine wetland locations and boundaries: United States Geological Survey topographic map and National Wetland Inventory map (Urbana 7.5 minute quadrangle); *Soil Survey of Champaign Co.*; aerial photographs; *National List of Plant Species That Occur in Wetlands*; *The 1987 Corps of Engineers Wetland Delineation Manual*; and on-site vegetation, soil, and hydrologic indicators.

A brief functional assessment of each wetland is provided in this report. However, this assessment is not an exhaustive description of the values of the site. The Floristic Quality Index (FQI), Developed by Taft, Ladd, Wilhelm and Masters (*Floristic Quality Assessment for vegetation in Illinois*, 1997), was applied to the vegetation of each site. This index should not be used as a substitute for quantitative analysis, but it does provide a measure of floristic integrity. The FQI is calculated as follows:  $I=R/\sqrt{N}$ , where R represents the sum of the numerical ratings for all species recorded in the area, and N represents the number of recorded native species. The mean C is calculated as:  $mean\ C=R/N$ . FQI values of less than 10 indicate low natural quality (less than 5, very low), while sites with values of 20 or more ( $mean\ C > 3.0$ ) have at least some evidence of native character and may be considered environmental assets.

Wetland site boundaries were mapped using Trimble GPS (Global Positioning System). The locations of the sites were overlain on Digital Ortho Quads using Arc View 3.2. Printouts of these DOQ's are included with this report, and included on disc. Results of



the wetland determination are summarized on the following pages and are described in more detail on the accompanying forms.

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### **Site Summary**

Site 1: This wet meadow is located 792.5 m (2600 ft) west of Philo Rd. and 794 m (2605 ft) north of Old Church Rd. Hydrophytic vegetation, hydric soils and wetland hydrology are present. Therefore the site is a wetland. Hydrologic inputs are precipitation and sheetflow. Water leaves the site by evapotranspiration and sheetflow. The site functions as flood storage, sediment abatement, and wildlife habitat of low quality. The site occupies 0.013 ha (0.03 acre) and is not coded as wetland by the NWI. The NRCS codes the site as PC/NW (prior converted cropland/nonwetland). The wetland is isolated. The FQI is 2.5, which is indicative of very low natural quality.

### **Watershed Data:**

This site is within the watershed for the Embarrass River. The USGS hydrologic unit code is 05120112 Embarrass River, Ohio River.

### **Literature Cited**

- Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1, U. S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MI. 207 pp.
- Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. USCOE, USEPA, USFWS, USDASCS Cooperative Technical Publication. Washington, DC. 76 pp.
- Mount, H. R. 1982. Soil Survey of Champaign County, IL. USDA Soil Conservation Service. IL Agric. Exp. Sta. Soil Report 114. 178 pp.
- Reed, P. B., 1988. National list of plants that occur in wetlands: North Central. USFWS, National Wetlands Inventory. NERC-88/18.13. 117 pp.
- Taft, J., G. Wilhelm, D. Ladd and L. Masters. 1997. Floristic Quality Assessment for vegetation of Illinois: a method for assessing vegetation integrity. *Erginia* 15: 3-95.

**Appendix 1: Wetland Determinations  
and Species Lists**

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1 (page 1 of 3)

**Field Investigators:** Plocher, Keene, Zercher      **Date:** 15, 21 August 2006  
**Job No.:** NA      **Project Name:** University of IL Wind Farm  
**State:** Illinois      **County:** Champaign      **Applicant:** U of I  
**Site Name:** Wet Meadow  
**Legal Description:** T. 19 N., R. 8 E., Sect. 33, NW/4 SW/4

**Location:** 792.5 m (2600 ft) west of Philo Rd., 794 m (2605 ft) north of Old Church Rd.

Do normal environmental conditions exist at this site?      Yes:       No:   
Has the vegetation, soil, or hydrology been significantly disturbed?      Yes:       No:

### VEGETATION

Dominant Plant Species	Stratum	Indicator Status
1. <i>Polygonum amphibium</i>	herb	OBL
2. <i>Setaria glauca</i>	herb	FAC

Percent of dominant species that are OBL, FACW, FAC+, or FAC: 100%

**Hydrophytic vegetation:** Yes:       No:

**Rationale:** More than 50% of dominants are OBL, FACW, FAC+, or FAC.

### SOILS

Series and phase: Drummer silty clay loam

On Champaign County hydric soils list? Yes:       No:

Is the soil a histosol?      Yes:       No:

Histic epipedon present?      Yes:       No:

Redox concentrations:      Yes:       No:

Redox depletions:      Yes:       No:

Matrix color: N 4/ and N 5/

Other indicators: This soil is found in a low area.

**Hydric soils:** Yes:       No:

**Rationale:** The Natural Resources Conservation Service classifies Drummer silty clay loam as having aquic conditions. This soil has iron masses and an iron depleted matrix. These characteristics are evidence of a hydric soil.

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1 (page 2 of 3)

**Field Investigators:** Plocher, Keene, Zercher      **Date:** 15, 21 August 2006  
**Job No.:** NA      **Project Name:** University of IL Wind Farm  
**State:** Illinois      **County:** Champaign      **Applicant:** U of I  
**Site Name:** Wet Meadow  
**Legal Description:** T. 19 N., R. 8 E., Sect. 33, NW/4 SW/4

**Location:** 792.5 m (2600 ft) west of Philo Rd., 794 m (2605 ft) north of Old Church Rd.

### HYDROLOGY

Inundated: Yes:    No: X    Depth of standing water: NA

Depth to saturated soil: > 1 m (3.3 ft)

Overview of hydrological flow through the system: Primary hydrologic inputs to this site are precipitation and runoff from the surrounding uplands. Evapotranspiration and sheetflow are the major outputs.

Size of watershed: < 2.59 km<sup>2</sup> (1 mi<sup>2</sup>)

Other field evidence observed: The site is depressional. Bare areas were observed.

**Wetland hydrology:** Yes: X    No:

**Rationale:** Field evidence cited above indicates that the site is flooded or saturated for a sufficient period during the growing season to meet the criterion of wetland hydrology.

### WETLAND DETERMINATION AND RATIONALE:

**Is the site a wetland?:** Yes: X    No:

**Rationale:** Hydrophytic vegetation, hydric soils and wetland hydrology are present. Therefore the site is a wetland. The site is not coded as wetland by the NWI. The NRCS codes the site PC/NW (prior converted cropland//nonwetland).

### ISOLATED STATUS

Is the wetland isolated?      Yes: X    No:

Rationale: No visible surface water connection to Waters of the United States

Determined by: Allen Plocher (vegetation and hydrology)  
Dennis Keene (soils and hydrology)  
Brad Zercher (mapping and hydrology)  
Illinois Natural History Survey  
Center for Wildlife Ecology  
1816 South Oak Street  
Champaign, Illinois 61820  
(217) 333-6292

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1 (page 3 of 3)

**Field Investigators:** Plocher, Keene, Zercher      **Date:** 15, 21 August 2006  
**Job No.:** NA      **Project Name:** University of IL Wind Farm  
**State:** Illinois      **County:** Champaign      **Applicant:** U of I  
**Site Name:** Wet Meadow  
**Legal Description:** T. 19 N., R. 8 E., Sect. 33, NW/4 SW/4

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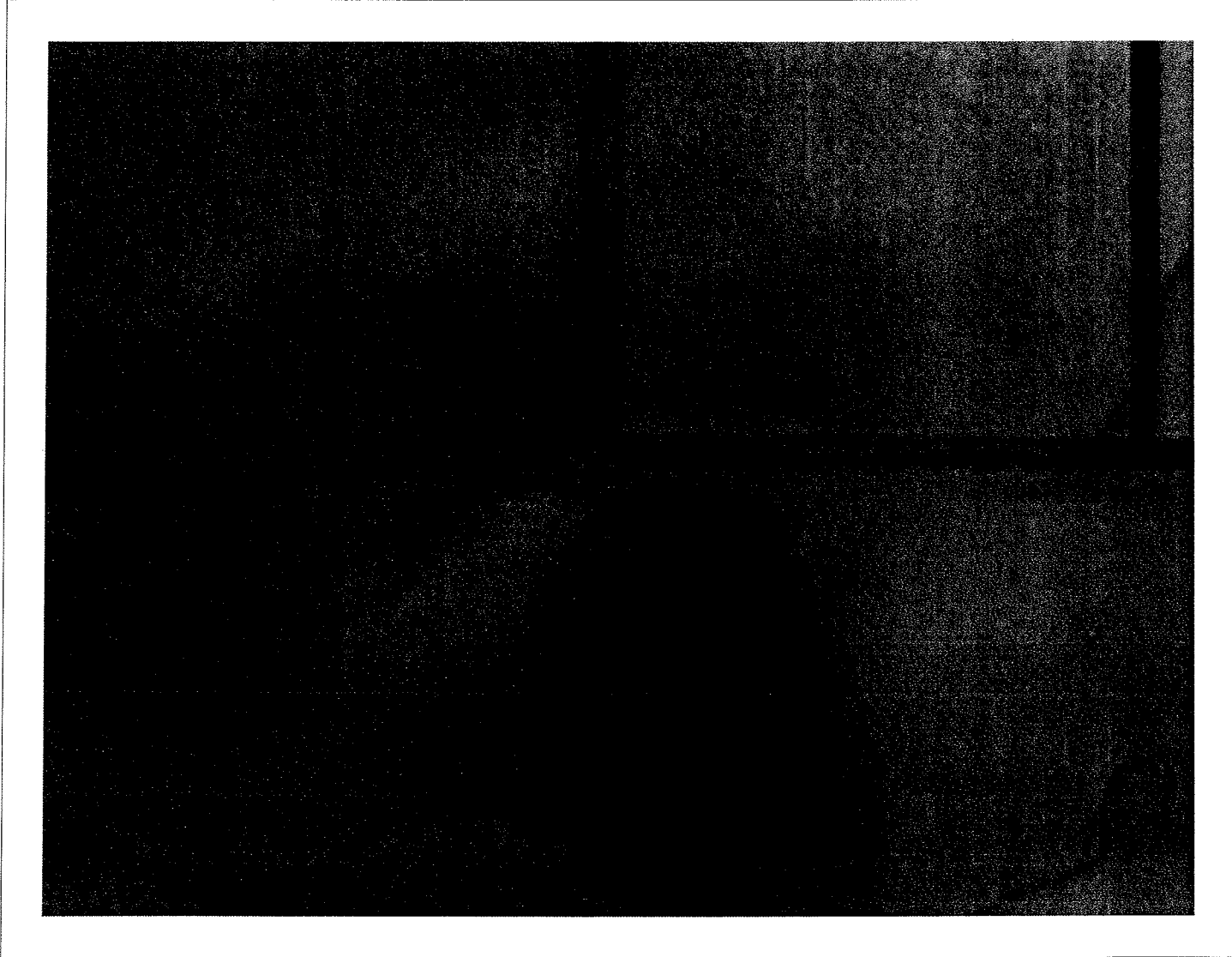
### SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C*
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bromus inermis</i>	awnless brome	herb	UPL	
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Digitaria sanguinalis</i>	hairy crabgrass	herb	FACU	
<i>Echinochloa crus galli</i>	barnyard grass	herb	FACW	
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Ipomea hederacea</i>	ivy leaf morning glory	herb	FAC	
<i>Lepidium virginicum</i>	peppergrass	herb	FACU-	0
<i>Medicago sativa</i>	alfalfa	herb	UPL	
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	
<i>Rumex crispus</i>	curly dock	herb	FAC+	
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	
<i>Setaria glauca</i>	yellow foxtail	herb	FAC	
<i>Sida spinosa</i>	prickly sida	herb	FACU	
<i>Solanum carolinense</i>	horse nettle	herb	FACU-	0
<i>Taraxacum officinale</i>	dandelion	herb	FACU	
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

\*Coefficient of Conservatism, as developed by Taft, Ladd, Wilhelm and Masters (1997)

FQI=  $8/\sqrt{10} = 2.5$ , mean rated quality=  $8/10 = 0.80$

# University of Illinois Wind Farm Project Champaign County

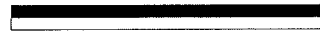


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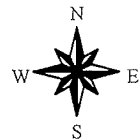


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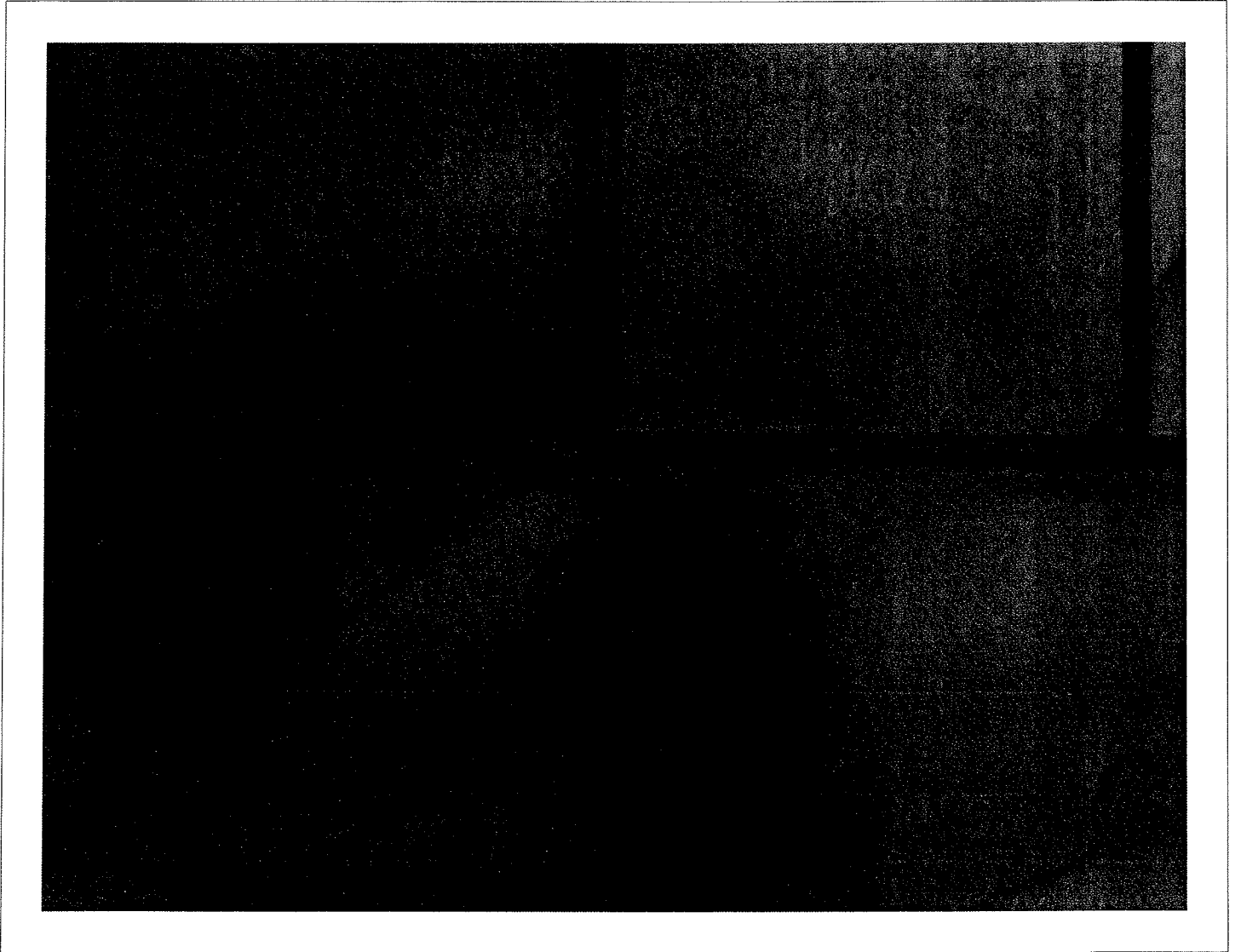


 Wetland site



08/06

# University of Illinois Wind Farm Project Champaign County



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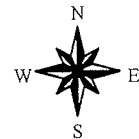


scale 1:2400  
1 inch=200 ft

0 100 Meters



 Wetland site



08/06