

WETLAND MITIGATION SITE MONITORING REPORT-2004 MORRIS WETLAND BANK

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Introduction

This report details the first year of monitoring of the Morris Wetland Bank in Grundy County, Illinois. The Morris Wetland Bank is located near Morris, Illinois and is immediately southeast of IL Route 47 and the Illinois River (Appendix 1). More information about the site can be found in the Wetland Bank Prospectus: Morris Site prepared by IDOT (Brooks 2000).

As of 17 May 2004 a total of 7630 trees had been planted on 109 acres of ground slated for wetland restoration at the Morris Wetland Bank in Grundy County, Illinois (IDOT Memo from Michael L. Hine dated 21 May 2004). These trees were planted in 11 different planned wetlands (labeled A through K in Appendix 1). On 27-28 July 2004 INHS personnel counted all live planted trees at each site. Wetland determinations were performed on 27-28 July and 20 September 2004. The following sources were examined while surveying the project area to determine wetland locations and boundaries: United States Geological Survey topographic maps and National Wetland Inventory (NWI) maps (Morris 7.5 minute quadrangle); *Soil Survey of Grundy County, Illinois*; aerial photographs; *National List of Plant Species that Occur in Wetlands: Illinois*; and the 1987 *Corps of Engineers Wetlands Delineation Manual*. These materials were used during an onsite evaluation of vegetation, soils, and hydrology. Results of these determinations are described in detail on the forms in Appendix 2. The boundaries of the sites determined to be wetlands were recorded using a Trimble Global Positioning System. The locations of wetland sites were overlaid on digital orthoquads (DOQs) using Arcview 3.2. A printout of this is included in Appendix 1.

This report discusses the goals, objectives, and performance criteria for the wetland bank, the methods used for monitoring the site, monitoring results, and a discussion and recommendations based on the results. Methods and results are discussed by performance criteria for each goal.

Goals, Objectives, and Performance Standards

Goals, objectives, and performance standards follow those specified in the Wetland Bank Prospectus (Brooks 2000) developed for this site. Performance criteria are based on those specified in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and in *Guidelines for Developing Mitigation Proposals* (USACE 1993). Each goal should be attained by the end of the 5-year monitoring period. Goals, objectives, and performance criteria are listed below.

Project goal: The goal of this wetland restoration project is to create one continuous tract of floodplain forest within the Morris Mitigation Bank. To this effect, 109 acres of wetland restoration area have been planted with native trees and shrubs in 11 different planned wetlands (A-K). Objectives and performance criteria for these planned wetlands follow.

Objective 1: Each planned wetland should be jurisdictional wetland as defined by current federal standards.

Performance criteria:

- a. Predominance of hydrophytic vegetation: More than 50% of the dominant plant species must be hydrophytic.
- b. Presence of wetland hydrology: The area must be either permanently or periodically inundated at average depths less than 2 m (6.6 ft) or have soils that are saturated to the surface for at least 5% of the growing season.
- c. Occurrence of hydric soils: Hydric soil characteristics should be present, or conditions favorable for hydric soil formation should persist at the site.

Objective 2: Each planned wetland should meet standards for floristic composition and vegetation cover.

Performance criteria:

- a. Establishment of planted trees and shrubs: At least 80% of the planted trees and shrubs should be established and living.
- b. Native species composition: At least 90% of the plants present should be non-weedy, native species.
- c. Dominance of vegetation: None of the three most dominant plant species in either site should be non-native or weedy species, such as cattails (*Typha* spp.), sandbar willow (*Salix exigua*), or reed canary grass (*Phalaris arundinacea*).

Methods

Objective 1

- a. Predominance of hydrophytic vegetation

The method for determining dominant vegetation at a wetland site is described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and further explained in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee for Wetland Delineation 1989). It is based on aerial coverage estimates for individual plant species. Each of the dominant plant species is assigned its wetland indicator status rating (Reed 1988). Any plant rated facultative or wetter, i.e., FAC, FAC+, FACW, and OBL, is considered a hydrophyte. A predominance of

vegetation in the wetland plant community exists if more than 50% of the dominant species present are hydrophytic.

b. Presence of wetland hydrology

Illinois State Geological Survey (ISGS) personnel installed soil moisture probes, stage gauges, monitoring wells, a RDS surface-water data logger, a rain gauge, a global data logger, and an Infinities sonic data logger at the Morris Mitigation Bank in order to assess the hydrology of the site. A figure showing the locations of these wells and instruments can be found in Appendix C. Water-level data was collected monthly throughout the year and biweekly during April and May. Methods are further described in the ISGS document *Annual report for active IDOT wetland compensation and hydrologic monitoring sites: September 1, 2003 to September 1, 2004* (Fucciolo et al. 2004).

c. Occurrence of hydric soils

The soil was sampled in order to monitor hydric soil development. Soil profile morphology including horizon color, texture, and structure was described at various points throughout the site. Additionally, the presence, type, size, and abundance of redoximorphic features were noted.

Hydric soils may develop slowly, and characteristics may not be apparent during the first several years after project construction. In the absence of hydric soil indicators at the end of the five-year monitoring period, hydrologic data could be used as corroborative evidence that conditions favorable for hydric soil formation persist at the site.

Objective 2

a. Establishment of planted trees and shrubs

In order to help create and restore floodplain forest, trees and shrubs were planted at each planned wetland site. According to a memo from Michael L. Hine (Engineer, IDOT Design and Environment) to John Betker (Project Manager, U.S. Army Corp of Engineers, Rock Island District) dated 21 May 2004, the following numbers of trees and shrubs (Table 1) were planted at the planned wetland sites (A-K) on May 17 2004.

Survivorship and density of planted trees was determined by censusing. All live planted trees were counted. Survival was calculated as a percentage of the number of expected live individuals: $(\text{Total number of live planted trees} / \text{number of known planted trees}) \times 100$.

b. Native species composition

Complete species lists were made for each site. These can be found in the wetland forms in Appendix 2. Non-native species are identified with an asterisk. The percent native species was calculated as number of native species divided by total number of species.

Table 1. Number of trees and shrubs by species planted per site at the Morris Wetland Mitigation Bank.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	22	3	148	4	19	10	7	76	19	9	116	433
Bur Oak	50	6	339	10	39	20	17	180	55	26	258	1000
Butternut	8	2	46	3	6	4	3	30	8	3	43	156
Black Walnut	51	8	339	10	39	20	17	180	55	26	258	1003
Roughleaf Dogwood	3	1	19	1	2	1	1	7	2	1	26	64
Hazelnut	5	1	36	1	5	1	1	22	7	3	18	100
Nannyberry	15	1	100	1	11	5	5	52	16	7	74	287
Shumard's Oak	25	2	170	5	20	10	9	90	29	10	130	500
White Ash	10	1	67	2	7	4	2	38	11	6	52	200
Overcup Oak	10	1	67	2	7	3	3	38	10	5	54	200
Paw Paw	59	6	396	0	45	24	19	210	64	28	304	1155
Sycamore	59	6	396	11	46	26	20	210	64	27	304	1169
Swamp White Oak	58	7	395	11	46	23	19	211	64	27	304	1165
Indigo Bush	2	1	11	1	2	1	1	7	2	1	11	40
Gray Dogwood	8	1	56	1	6	4	2	30	9	4	42	163

c. Dominance of vegetation

Plant species dominance was determined as in Objective 1, a. Predominance of hydrophytic vegetation. The method for determining dominant vegetation at a wetland site is described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and further explained in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee for Wetland Delineation 1989).

In addition, a photograph was taken of each planned wetland site in order to document changes in plant community size and composition.

Results

Project goal 1

a. Predominance of hydrophytic vegetation

Dominant plant species for the planned wetland sites are listed on the wetland forms in Appendix 2. Dominant hydrophytic vegetation was found in portions of sites A, B, C, H, and K. These are labeled A-1, B-1, C-1, H-1, and K-1 on the wetland forms.

b. Presence of wetland hydrology

The figure in Appendix 3 shows the areal extent of wetland hydrology at the Morris Wetland Mitigation Bank in 2004. Carr and Pociask (2004) found that the total area that satisfied the wetland hydrology criterion for greater than 5% of the growing season was 5.52 ha (13.62 ac) in 2004. The total area that satisfied the wetland criterion for greater than 12.5% of the growing season was 3.69 ha (9.1 ac). These acreages are for the entire mitigation site not just the area within the planned wetlands. The total area, according to well data, that satisfied the wetland hydrology criterion within the planned wetlands for greater than 5% of the growing season was 1.1 ha (3.74 ac). The total area, according to well data, that satisfied the wetland hydrology criterion within the planned wetlands for greater than 12.5% of the growing season was 1.2 ha (3.99 ac).

According Carr and Pociask (2004), water levels measured in 14 of the 43 soil-zone monitoring wells satisfied the wetland hydrology criterion of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual for a period greater than 5% of the growing season in 2004. In addition, 8 of the 43 soil-zone monitoring wells satisfied the wetland hydrology criterion for a period greater than 12.5% of the growing season (Carr and Pociask 2004).

Soil-zone wells which showed inundation or saturation for greater than 5% of the growing season included wells 11S, 12S, 16S, 18S, 21S, 35S, 42S, 43S, 43VS, 44S, 44VS, 46S, 48S and 51S (Appendix 3). Soil-zone wells which showed inundation or saturation for greater than 12.5% of the growing season included wells 11S, 21S, 42S, 43S, 43VS, 44S, 44VS, and 48S (Appendix 3).

Carr and Pociask (2004) also reported that in 2004, two combined Illinois and Mazon River floods occurred within the growing season that had a peak stage value sufficient to inundate areas at or below 150.27 m (493 ft). This elevation encompasses most of the areas slated for wetland restoration. The flood duration, however, was short, amounting to only 2.4 days and 2.8 days of inundation on average in these restoration areas (Carr and Pociask 2004). For a more detailed account of the hydrology of this site, see *Morris, Illinois River/Wetland Bank Site I.S.G.S. #49* (Carr and Pociask 2004).

Areas within the planned wetlands that had wetland hydrology corresponded fairly closely with the areas that had hydrophytic vegetation.

c. Occurrence of hydric soils

Hydric soils occur over at least a portion of each planned wetland. Many of the 11 sites have very similar hydric soil areas. There are minor differences in horizon thicknesses, and also

minor variation in colors of redoximorphic features. Because these differences are minor and do not in any way change the hydric status of these soils, descriptions of typical, representative pedons located in these areas are included in Tables 2 and 3 below. Table 2 is a soil description of a typical pedon of hydric soil located within sites A and B. Table 3 is a soil description of a typical pedon of hydric soil located within areas C, D, E, F, G, H, I, J, and K.

Table 2. Description of the soils at planned wetlands A and B.

Depth	Matrix Color	Redox Concentrations	Redox Depletions	Texture	Structure
0-15 cm	10YR 2.5/1	None	None	Silt loam	Granular
15-66 cm+	10YR 2.5/1	10YR 4/3	None	Silt loam	Subangular blocky

Table 3. Description of the soils at planned wetlands C, D, E, F, G, H, I, J, and K.

Depth	Matrix Color	Redox Concentrations	Redox Depletions	Texture	Structure
0-33 cm	10YR 3/1	10YR 4/3	None	Silt loam	Granular
33-66+ cm	10YR 3/1	10YR 4/3 (also some 10YR 4/4 in some)	None	Silt loam	Subangular blocky

The hydric soil types present at these sites were in all cases of larger extent than was the area containing hydrophytic vegetation. We did not concern ourselves with mapping the exact extent of hydric soil area, as we were more concerned with determining whether sites were jurisdictional wetlands or not. More extensive soil mapping could be undertaken to map out the exact acreage of hydric soil, but did not seem like a valuable exercise when confronted with the small areas which possessed hydrophytic vegetation and wetland hydrology. In all cases, the areas possessing hydrophytic vegetation and wetland hydrology were underlain by hydric soil. The ISGS data collected over the past five years seems to make it clear that much of the hydric soil at this site is no longer under the hydrologic regime it was when developing (i.e. the hydric soils are relic features). Presence of hydric soil is not the limiting factor of the jurisdictional status for any of these sites. More information on soils at sites A-K can be found in the wetland forms in Appendix 2.

The portions of these sites with wetland vegetation, soils, and hydrology are referred to as A-1, B-1, C-1, H-1, and K-1 on the wetland forms and in Appendix 1. Total wetland acreage within the planned wetlands was 3.05 ha (7.52 acres). Acreage per site is shown in Table 4 below. These acreages are slightly higher than those given by the ISGS as having wetland hydrology within the planned wetlands (Carr and Posiask 2004) because areas without wells that had wetland vegetation and hydric soils and that were depressional or at similar elevations to areas with wetland hydrology were assumed to have wetland hydrology.

Table 4. Amount of wetland acreage per site at the Morris Wetland Mitigation Bank.

Site	Acrees	Hectares
A-1	1.39	0.56
B-1	0.49	0.20
C-1	0.82	0.33
H-1	0.63	0.26
K-1	4.19	1.70
Total	7.52	3.05

Project goal 2

a. Establishment of planted trees and shrubs

Table 5 shows the results of the censusing of trees at sites A-K in 2004. Table 6 shows the percent survival. Overall, tree survival was 95.5%. Percent survival by site and by tree or shrub species are shown in bold in Table 6. Tree survival was over 80% at every site except sites D (68.3%) and J (67.2%). Four species had survival less than 80% although two of these, hazelnut and Shumard's oak, were just slightly under 80% (78% and 79.8%,

Table 5. Number of live trees counted by INHS personnel at sites A-K at the Morris Wetland Mitigation Bank.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	11	0	61	6	52	10	7	25	3	0	5	180
Bur Oak	43	6	244	3	6	18	18	70	10	3	33	454
Butternut	24	2	59	0	6	0	2	8	5	2	32	140
Black Walnut	51	8	410	7	4	19	19	195	67	22	422	1224
Roughleaf Dogwood	9	1	15	1	3	3	3	12	1	1	15	64
Hazelnut	3	0	41	1	3	0	2	16	0	0	12	78
Nannyberry	35	1	85	1	11	5	0	56	16	7	85	302
Shumard's Oak	46	3	121	1	17	9	2	30	34	8	128	399
White Ash	10	1	70	2	6	4	11	28	12	2	44	190
Overcup Oak	14	0	96	2	5	2	1	34	10	3	46	213
Paw Paw	52	8	324	0	44	16	24	230	66	21	210	995
Sycamore	57	11	383	10	43	24	21	222	73	17	289	1150
Swamp White Oak	52	17	481	7	52	21	2	343	117	34	511	1637
Indigo Bush	0	1	11	1	2	0	0	5	2	3	15	40
Gray Dogwood	12	1	42	1	6	5	3	18	8	0	55	151

Table 6. Percent survival at sites A-K at the Morris Wetland Mitigation Bank.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	50.0	0.0	41.2	150.0	273.7	100.0	100.0	32.9	15.8	0.0	4.3	41.6
Bur Oak	86.0	100.0	72.0	30.0	15.4	90.0	105.9	38.9	18.2	11.5	12.8	45.4
Butternut	300.0	100.0	128.3	0.0	100.0	0.0	66.7	26.7	62.5	66.7	74.4	89.7
Black Walnut	100.0	100.0	120.9	70.0	10.3	95.0	111.8	108.3	121.8	84.6	163.6	122.0
Roughleaf Dogwood	300.0	100.0	78.9	100.0	150.0	300.0	300.0	171.4	50.0	100.0	57.7	100.0
Hazelnut	60.0	0.0	113.9	100.0	60.0	0.0	200.0	72.7	0.0	0.0	66.7	78.0
Nannyberry	233.3	100.0	85.0	100.0	100.0	100.0	0.0	107.7	100.0	100.0	114.9	105.2
Shumard's Oak	184.0	150.0	71.2	20.0	85.0	90.0	22.2	33.3	117.2	80.0	98.5	79.8
White Ash	100.0	100.0	104.5	100.0	85.7	100.0	550.0	73.7	109.1	33.3	84.6	95.0
Overcup Oak	140.0	0.0	143.3	100.0	71.4	66.7	33.3	89.5	100.0	60.0	85.2	106.5
Paw Paw	88.1	133.3	81.8	0.0	97.8	66.7	126.3	109.5	103.1	75.0	69.1	86.1
Sycamore	96.6	183.3	96.7	90.9	93.5	92.3	105.0	105.7	114.1	63.0	95.1	98.4
Swamp White Oak	89.7	242.9	121.8	63.6	113.0	91.3	10.5	162.6	182.8	125.9	168.1	140.5
Indigo Bush	0.0	100.0	100.0	100.0	100.0	0.0	0.0	71.4	100.0	300.0	136.4	100.0
Gray Dogwood	150.0	100.0	75.0	100.0	100.0	125.0	150.0	60.0	88.9	0.0	131.0	92.6
Totals	108.8	127.7	94.5	68.3	86.7	87.2	91.3	93.6	102.2	67.2	95.4	

respectively). Two species of oaks, pin oak and burr oak, had very low survival (41.6% and 45.4%, respectively), while other species of oak had very high survival (140% for swamp white oak). All oak species combined, however, had a percent survival of 87.4% (Table 7). Young oak trees are notoriously difficult to identify, therefore, values could reflect inaccurate identification either at the time of planting or at the time of censusing. As the oaks mature, identification will become easier and more accurate.

Table 7. Percent survival of all oak species combined

	A	B	C	D	E	F	G	H	I	J	K	Totals
All oaks combined	100.61	136.84	89.63	59.38	100.76	90.91	54.55	84.37	98.31	62.34	83.87	87.4

b. Native species composition

Percent native species have been calculated from the species lists on the wetland forms in Appendix 2. These are given for each site in Table 8 below. None of the planned wetlands met the requirement of this performance criterion of 90% native species. Values ranged from 60.6% to 76.7%. These values are not uncommon for recent old fields. As succession proceeds at the sites weedy, non-native species may be replaced by non-weedy natives.

Table 8. Percent native species at sites A-K at the Morris Wetland Mitigation Bank.

	A	B	C	D	E	F	G	H	I	J	K
Percent native species	70.2	70.0	69.0	61.8	70.9	76.7	63.6	60.6	63.5	65.4	65.5

c. Dominance of vegetation

Dominant vegetation for sites A-K is listed on the wetland forms in Appendix 2. Sites that had significant portion that were hydrophytic and non-hydrophytic have two lists of dominants. The three most dominant species for each site are listed below (Table 9). Non-native species are in bold type and are marked with an asterisk (*), native but weedy species are in bold type. All sites except for A-1, B-1, and K-1 have weedy or non-native species among their three most dominant species. Therefore the majority of sites do not meet this performance criterion.

Photographs of sites A-K are included in Appendix 4 of this report.

Table 9. Three most dominant species at sites A-K at the Morris Wetland Mitigation Bank.

Site	Three most dominant species
A-1	<i>Amaranthus tuberculatus</i> , <i>Aster simplex</i> , <i>Elymus virginicus</i>
A-2	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria faberi</i> *
B-1	<i>Aster simplex</i> , <i>Elymus virginicus</i> , <i>Ipomoea lacunosa</i>
B-2	<i>Aster pilosus</i> , <i>Setaria faberi</i> *, <i>Solidago canadensis</i>
C-1	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria glauca</i> *
C-2	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Taraxacum officinale</i> *
D	<i>Cirsium arvense</i> *, <i>Elymus virginicus</i> , <i>Setaria faberi</i> *
E	<i>Cirsium arvense</i> *, <i>Elymus virginicus</i> , <i>Setaria faberi</i> *
F	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria faberi</i> *
G	<i>Cirsium arvense</i> *, <i>Elymus virginicus</i> , <i>Festuca pratensis</i> *
H-1	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Polygonum punctatum</i>
H-2	<i>Elymus virginicus</i> , <i>Setaria faberi</i> *, <i>Solidago canadensis</i>
I	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria glauca</i> *
J	<i>Daucus carota</i> *, <i>Elymus virginicus</i> , <i>Poa pratensis</i> *
K-1	<i>Aster simplex</i> , <i>Elymus virginicus</i> , <i>Polygonum amphibium</i>
K-2	<i>Ambrosia trifida</i> , <i>Aster pilosus</i> , <i>Elymus virginicus</i>

Discussion

Out of the 33.22 ha (109.0 acres) of planned wetland at the Morris Mitigation Bank, only 3.05 ha (7.52 acres) presently qualify as jurisdictional wetland (Appendix 2). ISGS personnel have been monitoring hydrology at the site for the past five years and results for each year have been similar to those found in 2004. Wetland hydrology exists only in several small depressional areas and drainage ways scattered throughout the site. Given the hydrology of the site, it is doubtful that the amount of jurisdictional wetland at the site will increase significantly over the next five years of monitoring. Significant alterations either to the topology or hydrology of this site would be required to change this outcome.

Tree survival at all sites combined was 95.5%. Tree survival was over the required 80% at all sites except D (68.3%) and J (67.2%). Trees that died within the first year were counted by personnel at IDOT District 3 and will be replaced by the contractor. At this time, no further action is recommended for meeting this goal.

None of the planned wetland sites met the requirement of 90% native species. Values ranged from 60.6% to 76.7%. These values are not uncommon for recent old fields. As succession proceeds weedy non-native species may be replaced by non-weedy natives. There were no sites that did not have non-native or weedy species among the three most dominant species. Only the wet portions of sites B and K did not have non-natives or weedy species among the three most dominant species. Canada thistle (*Cirsium arvense*) is a dominant at several sites and giant ragweed (*Ambrosia trifida*) at one site. These are both state-listed noxious weeds in Illinois and therefore should be eliminated from these sites.

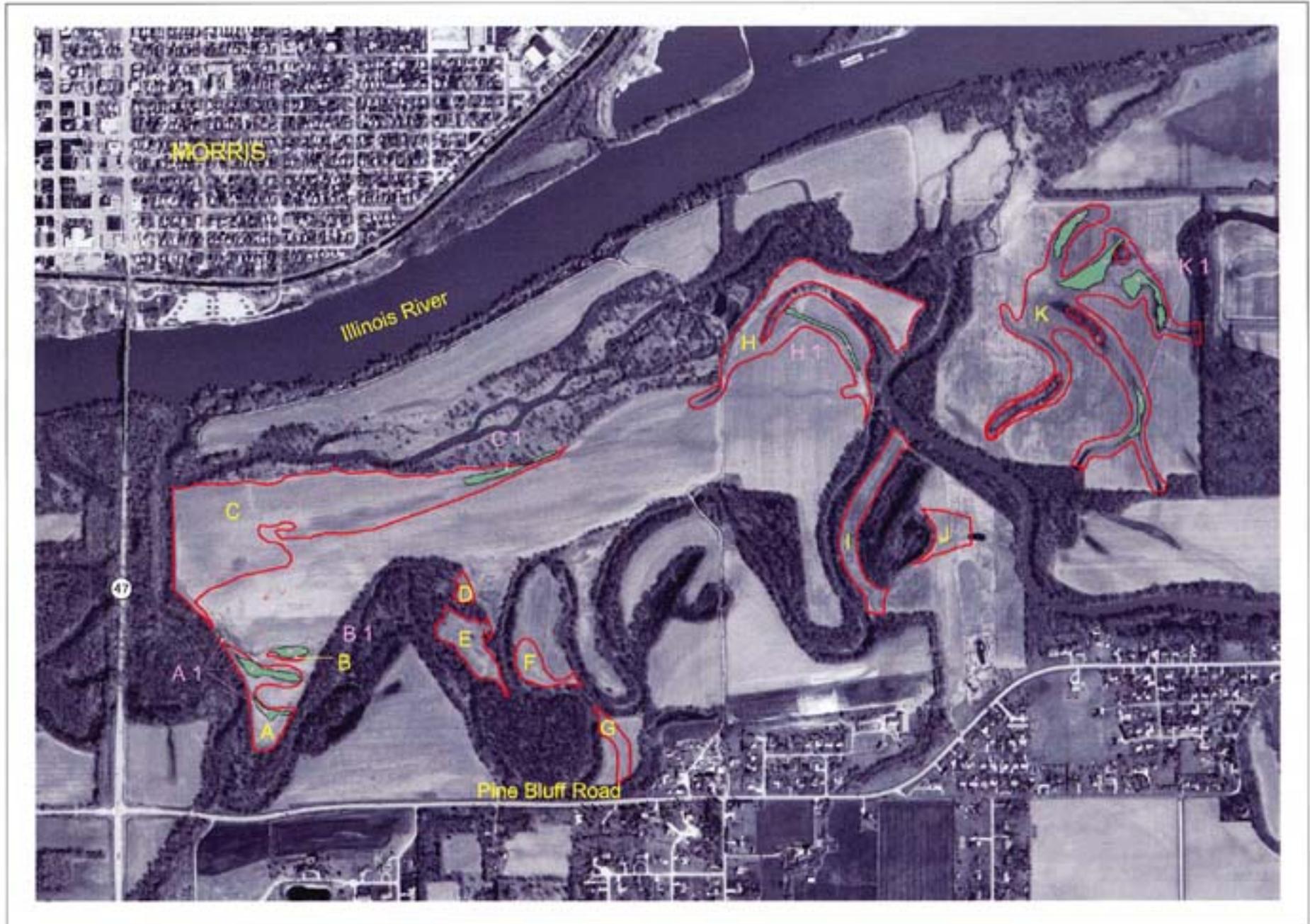
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APPENDIX 1

Locations of Planned Wetlands

Morris Mitigation Bank Site Grundy County



Wetland sites
Wetland restoration sites

0 1200 2400 Feet

0 500 Meters

scale 1:14,400
1 inch=1200 ft



APPENDIX 2

Wetland Delineation Forms

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 1 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

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

VEGETATION (A-1)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Amaranthus tuberculatus</i>	OBL	herb
2. <i>Aster simplex</i>	FACW	herb
3. <i>Elymus virginicus</i>	FACW-	herb

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

Hydrophytic vegetation: Yes: No:

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

SOILS (A-1)

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:

Is the soil a histosol? Yes: No:

Histic epipedon present? Yes: No:

Redox Concentrations? Yes: No: Color: 10YR 4/3

Redox Depletions? Yes: No: Color: N/A

Matrix color: 10YR 2.5/1

Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site A (page 2 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

HYDROLOGY (A-1)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: This site occupies several small depressions within the landscape. It receives water via precipitation and runoff from surrounding higher ground and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration and soil infiltration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: This site is lower in elevation than surrounding ground.

Wetland hydrology: Yes: X No:

Rationale: The low landscape position of this site indicates that wetland hydrology is present. In our opinion, this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (A-1)

Is the site a wetland? Yes: X No:

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present throughout this site. Therefore, we determined that this site is a wetland. The NRCS identified the southern portion of this site as a farmed wetland (FW). The NWI coded this entire site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 3 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.**Location:** This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

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

VEGETATION (A-2)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster pilosus</i>	FACU+	herb
2. <i>Conyza canadensis</i>	FAC-	herb
3. <i>Elymus virginicus</i>	FACW-	herb
4. <i>Setaria faberi</i>	FACU+	herb
5. <i>Setaria glauca</i>	FAC	herb
6. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No: **Rationale:** Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS (A-2)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: N/A
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

ROUTINE ONSITE WETLAND DETERMINATION
Site A (page 4 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

HYDROLOGY (A-2)

Inundated: Yes: No: X Depth of standing water: NA
 Depth to saturated soil: > 0.66 m (26 in)
 Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.
 Size of Watershed: Approximately 14023 km² (8714 mi²)
 Other field evidence observed: None.

Wetland hydrology: Yes: No: X
Rationale: No evidence of wetland hydrology was found at this site. In our opinion, this site is not inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (A-2)

Is the site a wetland? Yes: No: X
Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology do not occur at this site; therefore, we determined that this site is not a wetland. The NRCS identified the southern portion of this site as a farmed wetland (FW). The NWI coded this entire site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION
Site A (page 5 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Acer saccharinum</i>	silver maple	shrub, herb	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	blue vine	vine	FAC	1
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Digitaria ischaemum</i>	smooth crab grass	herb	FACU	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Juglans nigra</i>	black walnut	shrub, herb	FACU	4
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Morus alba</i>	white mulberry	herb	FAC	*
<i>Oxalis dillenii</i>	yellow wood sorrel	herb	FACU	0
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum lapathifolium</i>	currtop lady's thumb	herb	FACW+	0
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 6 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2, SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 335 m (1100 ft) east of Illinois 47 and just north of the Mazon River.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Potentilla simplex</i>	common cinquefoil	herb	FACU-	3
<i>Quercus bicolor</i>	swamp white oak	herb	FACW+	7
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	herb	FACW-	3
<i>Smilax hispida</i>	bristly greenbrier	herb	FAC	3
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 58/33 = 1.8$$

$$FQI = \bar{C}/\sqrt{N} = 58/\sqrt{33} = 10.1$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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 615 East Peabody Drive
 Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 1 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.**Location:** This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

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

VEGETATION (B-1)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster simplex</i>	FACW	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Ipomoea lacunosa</i>	FACW	herb

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

Hydrophytic vegetation: Yes: No: **Rationale:** More than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS (B-1)**

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No: Is the soil a histosol? Yes: No: Histic epipedon present? Yes: No: Redox Concentrations? Yes: No: Color: 10YR 4/3Redox Depletions? Yes: No: Color: N/A

Matrix color: 10YR 2.5/1

Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site B (page 2 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

HYDROLOGY (B-1)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: This site occupies a small depression within the landscape. It receives water via precipitation and runoff from surrounding higher ground and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration and soil infiltration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: This site occupies a low position in the landscape.

Wetland hydrology: Yes: X No:

Rationale: In addition to the field evidence cited above, ISGS soil-zone well #51 which is located within this site, satisfied the wetland hydrology criteria.

DETERMINATION AND RATIONALE (B-1)

Is the site a wetland? Yes: X No:

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present throughout this site. Therefore, we determined that this site is a wetland. The NWI did not identify this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 3 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

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

VEGETATION (B-2)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster pilosus</i>	FACU+	herb
2. <i>Setaria faberi</i>	FACU+	herb
3. <i>Solidago canadensis</i>	FACU	herb
4. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 0%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS (B-2)

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: N/A
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 4 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

HYDROLOGY (B-2)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (B-2)

Is the site a wetland? Yes: No: X

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are not present at this site. Therefore, we determined that this site is not a wetland. The NWI did not identify this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION
Site B (page 5 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer saccharinum</i>	silver maple	herb	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Carex</i> sp.	sedge	herb	----	--
<i>Celtis occidentalis</i>	hackberry	herb	FAC-	3
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Morus alba</i>	white mulberry	tree	FAC	*
<i>Oxalis dillenii</i>	yellow wood sorrel	herb	FACU	0
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Polygonum lapathifolium</i>	currtop lady's thumb	herb	FACW+	0
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Ranunculus abortivus</i>	little-leaf buttercup	herb	FACW-	1
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub, herb	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Ulmus americana</i>	American elm	tree	FACW-	5

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 28/21 = 1.3$$

$$FQI = \sum C/\sqrt{N} = 28/\sqrt{21} = 6.1$$

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 6 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SE/4 SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland is approximately 396 m (1300 ft) east of Illinois 47 and 407 m (1335 ft) north of Pine Bluff Road.

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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615 East Peabody Drive
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ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 1 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** SW/4 Sect. 10, T. 33 N., R. 7 E.**Location:** This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

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

VEGETATION (C-1)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster simplex</i>	FACW	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Setaria glauca</i>	FAC	herb

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

Hydrophytic vegetation: Yes: No: **Rationale:** More than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS (C-1)**

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No: Is the soil a histosol? Yes: No: Histic epipedon present? Yes: No: Redox Concentrations? Yes: No: Color: 10YR 4/3Redox Depletions? Yes: No: Color: N/A

Matrix color: 10YR 3/1

Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site C (page 2 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

HYDROLOGY (C-1)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: This site occupies a narrow depression within the landscape. It receives water via precipitation and runoff from surrounding higher ground and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration and soil infiltration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: This site is lower in elevation than surrounding ground.

Wetland hydrology: Yes: X No:

Rationale: The low landscape position of this site indicates that wetland hydrology is present. In our opinion, this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (C-1)

Is the site a wetland? Yes: X No:

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present throughout this site. Therefore, we determined that this site is a wetland. The NWI did not identify this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION
Site C (page 3 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

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

VEGETATION (C-2)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster pilosus</i>	FACU+	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Cirsium arvense</i>	FACU	herb
4. <i>Setaria glauca</i>	FAC	herb
5. <i>Taraxacum officinalis</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 60%

Hydrophytic vegetation: Yes: No:

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

SOILS (C-2)

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: N/A
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

ROUTINE ONSITE WETLAND DETERMINATION
Site C (page 4 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

HYDROLOGY (C-2)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (C-2)

Is the site a wetland? Yes: No: X

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are not present at this site. Therefore, we determined that this site is not a wetland. The NWI did not identify this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION
Site C (page 5 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	herb	FACW-	1
<i>Acer saccharinum</i>	silver maple	herb	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Amorpha fruticosa</i>	false indigo bush	shrub, herb	FACW+	6
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bidens coronata</i>	beggar-ticks	herb	OBL	8
<i>Brassica nigra</i>	black mustard	herb	UPL	*
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Campanula americana</i>	american bellflower	herb	FAC	4
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Carya cordiformis</i>	bitternut hickory	herb	FAC	4
<i>Celtis occidentalis</i>	hackberry	herb	FAC-	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Cyperus esculentus</i>	yellow nut-sedge	herb	FACW	0
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	shrub, herb	FACW	2
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Gleditsia triacanthos</i>	honey locust	herb	FAC	2
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 6 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	herb	FAC	*
<i>Oenothera biennis</i>	evening primrose	herb	FACU	1
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	woody vine	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Phytolacca americana</i>	pokeweed	herb	FAC-	1
<i>Plantago lanceolata</i>	lance-leaved plantain	herb	FAC	*
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum lapathifolium</i>	currtop lady's thumb	herb	FACW+	0
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Populus deltoides</i>	eastern cottonwood	herb	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Prunella vulgaris</i>	self-heal	herb	FAC	*
<i>Ptelea trifoliata</i>	wafer ash	herb	FACU+	4
<i>Quercus bicolor</i>	swamp white oak	herb	FACW+	7
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rosa multiflora</i>	multiflora rose	shrub, herb	FACU	*
<i>Rubus allegheniensis</i>	common blackberry	shrub, herb	FACU+	2
<i>Rudbeckia hirta</i>	black-eyed Susan	herb	FACU	2
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub, herb	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	herb	FACW-	3
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 7 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland stretches from 122 m (400 ft) to 1265 m (4150 ft) east of Illinois 47 and is between 244 m (800 ft) to 1006 m (3300 ft) north of Pine Bluff Rd.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Sonchus arvensis</i>	field sowthistle	herb	FAC-	*
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Ulmus americana</i>	American elm	herb	FACW-	5
<i>Vernonia missurica</i>	Missouri ironweed	herb	FAC+	5
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 106/49 = 2.2$$

$$FQI = \sum C/\sqrt{N} = 106/\sqrt{49} = 15.1$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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ROUTINE ONSITE WETLAND DETERMINATION
Site D (page 1 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and 549 m (1800 ft) north of Pine Bluff Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Cirsium arvense</i>	FACU	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Setaria faberi</i>	FACU+	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site D (page 2 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and 549 m (1800 ft) north of Pine Bluff Road.

HYDROLOGY

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone well #29 which is located within site D did not satisfy the wetland hydrology criteria.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X

Rationale: Although hydric soils are present throughout this site, dominant hydrophytic vegetation and wetland hydrology are not. Therefore, this site is not a wetland. The NWI coded this site as a seasonally flooded, emergent, palustrine wetland (PEMC). The NRCS designated this site as a farmed wetland (FW).

ROUTINE ONSITE WETLAND DETERMINATION
Site D (page 3 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and 549 m (1800 ft) north of Pine Bluff Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer saccharinum</i>	silver maple	herb	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bidens vulgata</i>	sticktight	herb	FACW	0
<i>Carex sp.</i>	sedge	herb	-----	--
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Digitaria ischaemum</i>	smooth crab grass	herb	FACU	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Plantago lanceolata</i>	lance-leaved plantain	herb	FAC	*
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	vine	FACW-	3
<i>Smilax hispida</i>	bristly greenbrier	herb	FAC	3
<i>Stachys palustris</i>	woundwort	herb	OBL	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site D (page 4 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and 549 m (1800 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Thlaspi arvense</i>	field penny cress	herb	UPL	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 37/21 = 1.8$$

$$FQI = \sum C / \sqrt{N} = 37/\sqrt{21} = 8.1$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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ROUTINE ONSITE WETLAND DETERMINATION
Site E (page 1 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and runs from 295 to 645 m (966 to 2116 ft) north of Pine Bluff Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Cirsium arvense</i>	FACU	herb
2. <i>Elymus virginicus</i>	FACW	herb
3. <i>Setaria faberi</i>	FACU+	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Hydric (majority of site)

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site E (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and runs from 295 to 645 m (966 to 2116 ft) north of Pine Bluff Road.

SOILS *continued***Non-hydric (small portion of site)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)
 On county hydric soils list? Yes: No: X
 Is the soil a histosol? Yes: No: X
 Histic epipedon present? Yes: No: X
 Redox Concentrations? Yes: No: X Color: N/A
 Redox Depletions? Yes: No: X Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No: X

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
 Depth to saturated soil: > 0.66 m (26 in)
 Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.
 Size of Watershed: Approximately 14023 km² (8714 mi²)
 Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone well #28 which is located within site E did not satisfy the wetland hydrology criteria.

ROUTINE ONSITE WETLAND DETERMINATION
Site E (page 3 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and runs from 295 to 645 m (966 to 2116 ft) north of Pine Bluff Road.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X

Rationale: Although a portion of this site has hydric soils, wetland hydrology and hydrophytic vegetation are not present over any of this site. The NWI did not code this site as a wetland.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Acer saccharinum</i>	silver maple	shrub, herb	FACW	1
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex sp.</i>	sedge	herb	-----	--
<i>Carya cordiformis</i>	bitternut hickory	shrub, herb	FAC	4
<i>Celtis occidentalis</i>	hackberry	shrub, herb	FAC-	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cryptotaenia canadensis</i>	honewort	herb	FAC	1
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Geum canadense</i>	white avens	herb	FAC	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site E (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306 **State:** Illinois
County: Grundy **Applicant:** IDOT District 3 **Site Name:** Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and runs from 295 to 645 m (966 to 2116 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Leersia virginica</i>	white grass	herb	FACW	4
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Muhlenbergia frondosa</i>	common satin grass	herb	FACW	3
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	woody vine	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum virginianum</i>	Virginia knotweed	herb	FAC	3
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Sanicula odorata</i>	common snakeroot	herb	FAC+	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Smilax hispida</i>	bristly greenbrier	herb	FAC	3
<i>Sonchus oleraceus</i>	common sowthistle	herb	FACU	*
<i>Stachys tenuifolia</i>	slenderleaf betony	herb	OBL	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Veronica peregrina</i>	purslane speedwell	herb	FACW+	0
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 72/39 = 1.9$$

$$FQI = \sum C/\sqrt{N} = 72/\sqrt{39} = 11.5$$

ROUTINE ONSITE WETLAND DETERMINATION
Site E (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occurs approximately 596 m (1955 ft) west of the gravel road which bisects the project area and runs from 295 to 645 m (966 to 2116 ft) north of Pine Bluff Road.

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
Illinois Natural History Survey
607 East Peabody Drive
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Keith Carr and Geoff Pociask (hydrology)
Illinois State Geological Survey
615 East Peabody Drive
Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site F (page 1 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** SW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.**Location:** This planned wetland occupies the lower areas in the field approximately 386 m (1265 ft) west of the gravel road which bisects the project area and runs from 323 to 673 m (1058 to 2208 ft) north of Pine Bluff Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster pilosus</i>	FACU+	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Setaria faberi</i>	FACU+	herb
4. <i>Setaria glauca</i>	FAC	herb
5. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 40%

Hydrophytic vegetation: Yes: No: **Rationale:** Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS****Hydric (minority of the site)**

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site F (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occupies the lower areas in the field approximately 386 m (1265 ft) west of the gravel road which bisects the project area and runs from 323 to 673 m (1058 to 2208 ft) north of Pine Bluff Road.

SOILS *continued***Non-hydric (majority of the site)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list?	Yes:	No: X	
Is the soil a histosol?	Yes:	No: X	
Histic epipedon present?	Yes:	No: X	
Redox Concentrations?	Yes:	No: X	Color: N/A
Redox Depletions?	Yes:	No: X	Color: N/A
Matrix color: 10YR 3/1			
Other indicators: None			

Hydric soils? Yes: No: X

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

HYDROLOGY

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone well #30 which is located within site F did not satisfy the wetland hydrology criteria.

ROUTINE ONSITE WETLAND DETERMINATION
Site F (page 3 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland

Legal Description: SW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.

Location: This planned wetland occupies the lower areas in the field approximately 386 m (1265 ft) west of the gravel road which bisects the project area and runs from 323 to 673 m (1058 to 2208 ft) north of Pine Bluff Road.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X

Rationale: Although a portion of this site has hydric soils, wetland hydrology and hydrophytic vegetation are not present over any of this site. The NWI coded this site as a seasonally flooded, emergent, palustrine wetland (PEMC). The NRCS designated this site as a farmed wetland (FW).

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Celtis occidentalis</i>	hackberry	shrub, herb	FAC-	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Cynanchum laeve</i>	blue vine	herb	FACU	*
<i>Dactylis glomerata</i>	orchard grass	herb	OBL	0
<i>Echinochloa muricata</i>	barnyard grass	herb	FACW-	4
<i>Elymus virginicus</i>	Virginia wild rye	herb	FAC-	1
<i>Erigeron annuus</i>	annual fleabane	herb	FAC+	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site F (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland

Legal Description: SW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.

Location: This planned wetland occupies the lower areas in the field approximately 386 m (1265 ft) west of the gravel road which bisects the project area and runs from 323 to 673 m (1058 to 2208 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Leersia virginica</i>	white grass	herb	FACW	4
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Muhlenbergia frondosa</i>	common satin grass	herb	FACW	3
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum lapathifolium</i>	curttop lady's thumb	herb	FACW+	0
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Viola pratensis</i>	common blue violet	herb	FAC	1
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2
<i>Xanthium strumarium</i>	cockle bur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 53/33 = 1.6$$

$$FQI = \sum C/\sqrt{N} = 53/\sqrt{33} = 9.2$$

ROUTINE ONSITE WETLAND DETERMINATION
Site F (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: SW/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occupies the lower areas in the field approximately 386 m (1265 ft) west of the gravel road which bisects the project area and runs from 323 to 673 m (1058 to 2208 ft) north of Pine Bluff Road.

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
Illinois Natural History Survey
607 East Peabody Drive
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(217) 244-6858 (Feist)

Keith Carr and Geoff Pociask (hydrology)
Illinois State Geological Survey
615 East Peabody Drive
Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site G (page 1 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** NE/4, SE/4 Sect. 10, T. 33 N., R. 7 E.**Location:** This planned wetland occupies the lower areas in the field approximately 238 m (782 ft) west of the gravel road which bisects the project area and runs from 49 to 224 m (161 to 736 ft) north of Pine Bluff Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Cirsium arvense</i>	FACU	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Festuca pratensis</i>	FACU-	herb
4. <i>Poa pratensis</i>	FAC-	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 25%

Hydrophytic vegetation: Yes: No: **Rationale:** Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS****Hydric (minority of the site)**

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site G (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occupies the lower areas in the field approximately 238 m (782 ft) west of the gravel road which bisects the project area and runs from 49 to 224 m (161 to 736 ft) north of Pine Bluff Road.

SOILS *continued***Non-hydric (majority of the site)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list?	Yes:	No: X	
Is the soil a histosol?	Yes:	No: X	
Histic epipedon present?	Yes:	No: X	
Redox Concentrations?	Yes:	No: X	Color: N/A
Redox Depletions?	Yes:	No: X	Color: N/A
Matrix color: 10YR 3/1			
Other indicators: None			

Hydric soils? Yes: No: X

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

HYDROLOGY

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone well #36 which is located within site G did not satisfy the wetland hydrology criteria.

ROUTINE ONSITE WETLAND DETERMINATION
Site G (page 3 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland

Legal Description: NE/4, SE/4 Sect. 10, T. 33 N., R. 7 E.

Location: This planned wetland occupies the lower areas in the field approximately 238 m (782 ft) west of the gravel road which bisects the project area and runs from 49 to 224 m (161 to 736 ft) north of Pine Bluff Road.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X

Rationale: Although a portion of this site has hydric soils, wetland hydrology and hydrophytic vegetation are not present over any of this site. The NWI coded this site as a seasonally flooded, emergent, palustrine wetland (PEMC). The NRCS designated this site as a farmed wetland (FW).

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Acer saccharinum</i>	silver maple	shrub, herb	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Arctium minus</i>	common burdock	herb	UPL	*
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex sp.</i>	sedge	herb	-----	--
<i>Celtis occidentalis</i>	hackberry	shrub, herb	FAC-	3
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	shrub, herb	FACW	2
<i>Gleditsia triacanthos</i>	honey locust	shrub, herb	FAC	2
<i>Juglans nigra</i>	black walnut	shrub, herb	FACU	4
<i>Medicago lupulina</i>	black medic	herb	FAC-	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site G (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occupies the lower areas in the field approximately 238 m (782 ft) west of the gravel road which bisects the project area and runs from 49 to 224 m (161 to 736 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Muhlenbergia frondosa</i>	common satin grass	herb	FACW	3
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phleum pratense</i>	Timothy	herb	FACU	*
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Phytolacca americana</i>	pokeweed	herb	FAC-	1
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rubus allegheniensis</i>	common blackberry	shrub	FACU+	2
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sanicula odorata</i>	common snakeroot	herb	FAC+	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	herb	FACW-	3
<i>Sida spinosa</i>	prickly sida	herb	FACU	*
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	field sowthistle	herb	FAC-	*
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Ulmus americana</i>	American elm	shrub, herb	FACW-	5
<i>Ulmus pumila</i>	Siberian elm	shrub, herb	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbesina alternifolia</i>	wing stem	herb	FACW	4

Species list continued on the next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site G (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SE/4 Sect. 10, T. 33 N., R. 7 E.
Location: This planned wetland occupies the lower areas in the field approximately 238 m (782 ft) west of the gravel road which bisects the project area and runs from 49 to 224 m (161 to 736 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \Sigma C/N = 66/35 = 1.9$$

$$FQI = \Sigma C / \sqrt{N} = 66/\sqrt{35} = 11.2$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 1 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.**Location:** This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

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

VEGETATION (H-1)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster simplex</i>	FACW	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Polygonum punctatum</i>	OBL	herb
4. <i>Populus deltoides</i>	FAC+	herb

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

Hydrophytic vegetation: Yes: No: **Rationale:** More than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS (H-1)**

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No: **Rationale:** The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 2 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

HYDROLOGY (H-1)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: This site occupies a shallow drainage way. It receives water via precipitation and runoff from surrounding higher ground and overflow from the Mazon River. Water leaves the site primarily via evapotranspiration, soil infiltration, and stream flow into the Mazon River.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: Drift lines and wetland drainage patterns were observed.

Wetland hydrology: Yes: X No:

Rationale: Field evidence cited above indicates that wetland hydrology is present. In our opinion, this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE (H-1)

Is the site a wetland? Yes: X No:

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present throughout this site; therefore this site is a wetland. The NWI did not code this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION
Site H (page 3 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

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

VEGETATION (H-2)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Cirsium arvense</i>	FACU	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Poa pratensis</i>	FAC-	herb
4. <i>Setaria faberi</i>	FACU+	herb
5. <i>Setaria glauca</i>	FACW-	herb
6. <i>Solidago canadensis</i>	FAC	herb
7. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 43%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS (H-2)

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: N/A
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

ROUTINE ONSITE WETLAND DETERMINATION
Site H (page 4 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

HYDROLOGY (H-2)

Inundated: Yes: No: X Depth of standing water: NA
 Depth to saturated soil: > 0.66 m (26 in)
 Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.
 Size of Watershed: Approximately 14023 km² (8714 mi²)
 Other field evidence observed: None

Wetland hydrology: Yes: No: X
Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone wells #32 and #33 which are located within site G-2 did not satisfy the wetland hydrology criteria.

DETERMINATION AND RATIONALE (H-2)

Is the site a wetland? Yes: No: X
Rationale: Neither dominant hydrophytic vegetation, hydric soils, or wetland hydrology are present at this site. Therefore this site is not a wetland. The NWI did not code this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION
Site H (page 5 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Amorpha fruticosa</i>	false indigo bush	shrub	FACW+	6
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Arctium minus</i>	common burdock	herb	UPL	*
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Brassica nigra</i>	black mustard	herb	UPL	*
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Campanula americana</i>	American bellflower	herb	FAC	4
<i>Carex sp.</i>	sedge	herb	-----	--
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus drummondii</i>	rough-leaved dogwood	shrub	FAC	2
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Desmanthus illinoensis</i>	Illinois bundle flower	herb	FAC-	4
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Eupatorium altissimum</i>	tall boneset	herb	FACU	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	shrub, herb	FACW	2
<i>Geum canadense</i>	white avens	herb	FAC	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 6 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Gleditsia triacanthos</i>	honey locust	shrub, herb	FAC	2
<i>Helenium autumnale</i>	sneezeweed	herb	FACW+	3
<i>Ipomoea hederacea</i>	ivy-leaved morning glory	herb	FAC	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Lactuca serriola</i>	compass plant	herb	FAC	*
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Muhlenbergia frondosa</i>	common satin grass	herb	FACW	3
<i>Oenothera biennis</i>	evening primrose	herb	FACU	1
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Plantago lanceolata</i>	lance-leaved plantain	herb	FAC	*
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	eastern cottonwood	shrub, herb	FAC+	2
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 7 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NW/4, NW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland occurs in the open area between the gravel road that bisects the project area and the Mazon River, between 1326 m (4350 ft) to 1798 (5900 ft) north of Pine Bluff Road.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	field sowthistle	herb	FAC-	*
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Verbesina alternifolia</i>	wing stem	herb	FACW	4
<i>Vernonia missurica</i>	Missouri ironweed	herb	FAC+	5
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2
<i>Xanthium strumarium</i>	cockle bur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 83/43 = 1.9$$

$$FQI = \sum C/\sqrt{N} = 83/\sqrt{43} = 12.7$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 1 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field just east of the Mazon River from 488 m (1600 ft) to 1021 m (3350 ft) north of Pine Bluff Rd.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster pilosus</i>	FACU+	herb
3. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Poa pratensis</i>	FAC-	herb
4. <i>Setaria faberi</i>	FACU+	herb
5. <i>Setaria glauca</i>	FAC	herb
6. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Hydric (minority of the site)

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site I (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field just east of the Mazon River from 488 m (1600 ft) to 1021 m (3350 ft) north of Pine Bluff Rd.

SOILS *continued***Non-hydric (majority of the site)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list?	Yes:	No: X	
Is the soil a histosol?	Yes:	No: X	
Histic epipedon present?	Yes:	No: X	
Redox Concentrations?	Yes:	No: X	Color: N/A
Redox Depletions?	Yes:	No: X	Color: N/A
Matrix color: 10YR 3/1			
Other indicators: None			

Hydric soils? Yes: No: X

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

HYDROLOGY

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone well #41 which is located within site I did not satisfy the wetland hydrology criteria.

ROUTINE ONSITE WETLAND DETERMINATION
Site I (page 3 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field just east of the Mazon River from 488 m (1600 ft) to 1021 m (3350 ft) north of Pine Bluff Rd.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X

Rationale: Although hydric soils are present on a portion of this site, dominant hydrophytic vegetation and wetland hydrology are not. Therefore, this site is not a wetland. The NWI did not code this site as a wetland.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Acer saccharinum</i>	silver maple	shrub, herb	FACW	1
<i>Ailanthus altissima</i>	tree-of-heaven	shrub, herb	NI	*
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Digitaria ischaemum</i>	smooth crab grass	herb	FACU	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site I (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field just east of the Mazon River from 488 m (1600 ft) to 1021 m (3350 ft) north of Pine Bluff Rd.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Heracleum lanatum</i>	cow parsnip	herb	FACW	6
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Ipomoea hederacea</i>	ivy-leaved morning glory	herb	FAC	*
<i>Juglans nigra</i>	black walnut	shrub, herb	FACU	4
<i>Lepidium densiflorum</i>	peppergrass	herb	FAC	*
<i>Lonicera maackii</i>	amur honeysuckle	shrub	UPL	*
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phleum pratense</i>	Timothy	herb	FACU	*
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Polygonum scandens</i>	climbing buckwheat	herb	FAC	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Stachys tenuifolia</i>	slenderleaf betony	herb	OBL	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: S/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field just east of the Mazon River from 488 m (1600 ft) to 1021 m (3350 ft) north of Pine Bluff Rd.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbesina alternifolia</i>	wing stem	herb	FACW	4
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2
<i>Xanthium strumarium</i>	cockle bur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 70/40 = 1.8$$

$$FQI = \sum C / \sqrt{N} = 70/\sqrt{40} = 11.1$$

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
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 Illinois State Geological Survey
 615 East Peabody Drive
 Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site J (page 1 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field 274 m (900 ft) east of the Mazon River and from 594 m (1950 ft) to 762 m (2500 ft) north of Pine Bluff Rd.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Cirsium arvense</i>	FACU	herb
2. <i>Daucus carota</i>	UPL	herb
3. <i>Elymus virginicus</i>	FACW-	herb
4. <i>Phalaris arundinacea</i>	FACW+	herb
5. <i>Poa pratensis</i>	FAC-	herb
6. <i>Glechoma hederacea</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No:

Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site J (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field 274 m (900 ft) east of the Mazon River and from 594 m (1950 ft) to 762 m (2500 ft) north of Pine Bluff Rd.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 0.66 m (26 in)
Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.
Size of Watershed: Approximately 14023 km² (8714 mi²)
Other field evidence observed: None

Wetland hydrology: Yes: No: X
Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

DETERMINATION AND RATIONALE

Is the site a wetland? Yes: No: X
Rationale: Although hydric soils are present at this site, dominant hydrophytic vegetation and wetland hydrology are not. Therefore, this site is not a wetland. The NWI did not code this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION

Site J (page 3 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** NE/4, SW/4 Sect. 11, T. 33 N., R. 7 E.**Location:** This planned wetland is located in the open field 274 m (900 ft) east of the Mazon River and from 594 m (1950 ft) to 762 m (2500 ft) north of Pine Bluff Rd.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Campanula americana</i>	American bellflower	herb	FAC	4
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Coryza canadensis</i>	horseweed	herb	FAC-	0
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Lepidium densiflorum</i>	peppergrass	herb	FAC	*
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Muhlenbergia frondosa</i>	common satin grass	herb	FACW	3
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION
Site J (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field 274 m (900 ft) east of the Mazon River and from 594 m (1950 ft) to 762 m (2500 ft) north of Pine Bluff Rd.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia hirta</i>	black-eyed Susan	herb	FACU	2
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	field sowthistle	herb	FAC-	*
<i>Stachys tenuifolia</i>	slenderleaf betony	herb	OBL	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Ulmus americana</i>	American elm	shrub, herb	FACW-	5
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Viola sororia</i>	woolly blue violet	herb	FAC-	3
<i>Xanthium strumarium</i>	cockle bur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 63/34 = 1.9$$

$$FQI = \sum C/\sqrt{N} = 63/\sqrt{34} = 10.8$$

ROUTINE ONSITE WETLAND DETERMINATION
Site J (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: NE/4, SW/4 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the open field 274 m (900 ft) east of the Mazon River and from 594 m (1950 ft) to 762 m (2500 ft) north of Pine Bluff Rd.

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
(vegetation and hydrology)
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ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 1 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

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

VEGETATION (K-1)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Aster simplex</i>	FACW	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Polygonum amphibium</i>	OBL	herb
4. <i>Xanthium strumarium</i>	FAC	herb

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

Hydrophytic vegetation: Yes: No:

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

SOILS (K-1)

Series and phase: Sawmill silty clay loam (Cumulic Endoaquoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: 10YR 4/3
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Sawmill as a Cumulic Endoaquoll which is poorly drained. The presence of redox concentrations within a low chroma matrix indicates conditions of saturation for long duration during the growing season. Therefore, the soil at this site meets the hydric soil criteria. This soil meets NRCS hydric soil indicator F6 – Redox dark surface.

ROUTINE ONSITE WETLAND DETERMINATION
Site K (page 2 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

HYDROLOGY (K-1)

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

Depth to saturated soil: > 0.66 m (26 in)

Overview of hydrological flow through the system: This site consists of four separate low areas within the landscape. Each receives water via precipitation and runoff from surrounding higher ground and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration, soil infiltration, and drainage into the Mazon River.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: This site occupies low positions within the landscape. Drift lines and wetland drainage patterns were observed.

Wetland hydrology: Yes: No:

Rationale: Field evidence cited above indicates that wetland hydrology is present. In our opinion, this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone wells #21, #42, and #43 which are located within site K-1 satisfied the wetland hydrology criteria.

DETERMINATION AND RATIONALE (K-1)

Is the site a wetland? Yes: No:

Rationale: Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present throughout this site; therefore, this site is a wetland. The NWI coded this site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 3 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews**Date:** 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank**Job No.:** P-93-010-98 **Seq. No.:** 1306**State:** Illinois **County:** Grundy **Applicant:** IDOT District 3**Site Name:** Planned wetland**Legal Description:** N/2 Sect. 11, T. 33 N., R. 7 E.**Location:** This planned wetland is located in the large field in the eastern most portion of the project area.

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

VEGETATION (K-2)

Dominant Plant Species	Indicator Status	Stratum
1. <i>Ambrosia trifida</i>	FAC+	herb
2. <i>Aster pilosus</i>	FACU+	herb
3. <i>Elymus virginicus</i>	FACW-	herb
4. <i>Hordeum jubatum</i>	FAC+	herb
5. <i>Poa pratensis</i>	FAC-	herb
6. <i>Solidago canadensis</i>	FACU	herb
7. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 43%

Hydrophytic vegetation: Yes: No: **Rationale:** Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.**SOILS (K-2)**

Series and phase: Lawson silt loam (Aquic Cumulic Hapludoll)

On county hydric soils list? Yes: No:
 Is the soil a histosol? Yes: No:
 Histic epipedon present? Yes: No:
 Redox Concentrations? Yes: No: Color: N/A
 Redox Depletions? Yes: No: Color: N/A
 Matrix color: 10YR 3/1
 Other indicators: None

Hydric soils? Yes: No:

Rationale: The Natural Resources Conservation Service identifies Lawson as an Aquic Cumulic Hapludoll which is somewhat poorly drained. This soil does not possess any redoximorphic features. Therefore, the soil at this site does not meet the hydric soil criteria. This soil does not meet any of the NRCS hydric soil indicators.

ROUTINE ONSITE WETLAND DETERMINATION
Site K (page 4 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

HYDROLOGY (K-2)

Inundated: Yes: No: X

Depth of standing water: NA

Depth to saturated soil: > 0.0 m (0 in)

Overview of hydrological flow through the system: It receives water via precipitation and occasional overflow from the Illinois and Mazon rivers. Water leaves the site primarily via evapotranspiration.

Size of Watershed: Approximately 14023 km² (8714 mi²)

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: There is no field evidence to indicate that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion. Also, ISGS soil-zone wells #22 and #23 which are located within site K-2 did not satisfy the wetland hydrology criteria.

DETERMINATION AND RATIONALE (K-2)

Is the site a wetland? Yes: No: X

Rationale: This site has neither dominant hydrophytic vegetation, hydric soils, nor wetland hydrology; therefore, this site is not a wetland. The NWI coded this site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION
Site K (page 5 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Abutilon theophrasti</i>	velvet-leaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Ammannia coccinea</i>	long-leaved ammania	herb	OBL	5
<i>Andropogon gerardii</i>	big bluestem	herb	FAC-	5
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Asclepias verticillata</i>	horsetail milkweed	herb	UPL	1
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Berteroa incana</i>	hoary alyssum	herb	UPL	*
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Bidens vulgata</i>	sticktight	herb	FACW	0
<i>Boltonia asteroides</i>	false aster	herb	FACW	5
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Bromus tectorum</i>	cheat grass brome	herb	UPL	*
<i>Campanula americana</i>	American bellflower	herb	FAC	4
<i>Campsis radicans</i>	trumpet creeper	shrub	FAC	2
<i>Carex sp.</i>	sedge	herb	-----	--
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium discolor</i>	field thistle	herb	UPL	2
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Coronilla varia</i>	crown vetch	herb	UPL	*
<i>Cyperus esculentus</i>	yellow nut-sedge	herb	FACW	0
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Desmanthus illinoensis</i>	Illinois bundleflower	herb	FAC-	4
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 6 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Eleocharis erythropoda</i>	spike rush	herb	OBL	3
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Ipomoea hederacea</i>	ivy-leaved morning glory	herb	FAC	*
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Juglans nigra</i>	black walnut	shrub, herb	FACU	4
<i>Lonicera maackii</i>	amur honeysuckle	shrub	UPL	*
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Oenothera biennis</i>	evening primrose	herb	FACU	1
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Physalis subglabrata</i>	smooth ground cherry	herb	UPL	0
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Populus deltoides</i>	eastern cottonwood	shrub, herb	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Prunella vulgaris</i>	self-heal	herb	FAC	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia hirta</i>	black-eyed Susan	herb	FACU	2
<i>Rudbeckia laciniata</i>	cut-leaf coneflower	herb	FACW+	3

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 7 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank

Job No.: P-93-010-98 **Seq. No.:** 1306

State: Illinois **County:** Grundy **Applicant:** IDOT District 3

Site Name: Planned wetland

Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.

Location: This planned wetland is located in the large field in the eastern most portion of the project area.

SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	herb	FACW-	3
<i>Sida spinosa</i>	prickly sida	herb	FACU	*
<i>Smilax hispida</i>	bristly greenbrier	herb	FAC	3
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	field sowthistle	herb	FAC-	*
<i>Stachys tenuifolia</i>	slenderleaf betony	herb	OBL	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Ulmus americana</i>	American elm	shrub, herb	FACW-	5
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2
<i>Xanthium strumarium</i>	cockle bur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{c} = \sum C/N = 111/57 = 1.9$$

$$FQI = \bar{c} / \sqrt{N} = 111 / \sqrt{57} = 14.7$$

ROUTINE ONSITE WETLAND DETERMINATION
Site K (page 8 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Busemeyer, and Matthews
Date: 27, 28 July and 20 September 2004 **Project Name:** Morris Wetland Bank
Job No.: P-93-010-98 **Seq. No.:** 1306
State: Illinois **County:** Grundy **Applicant:** IDOT District 3
Site Name: Planned wetland
Legal Description: N/2 Sect. 11, T. 33 N., R. 7 E.
Location: This planned wetland is located in the large field in the eastern most portion of the project area.

Determined by: Mary Ann Feist, Dan Busemeyer, and Jeff Matthews
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
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607 East Peabody Drive
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Illinois State Geological Survey
615 East Peabody Drive
Champaign, Illinois 61820

APPENDIX 3
Hydrological Information

Morris, Illinois River Wetland Bank Site
Estimated Areal Extent of 2004 Wetland Hydrology
 based on data collected between September 1, 2003 and September 1, 2004
 map based on USGS digital orthophotograph, Morris NE quarter quadrangle
 from 4/5/1998 aerial photography (USGS 2001)

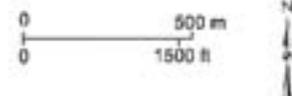


LEGEND

2004 WETLAND HYDROLOGY

- > 5% of the growing season
- > 12.5% of the growing season
- approximate site boundary

- soil-moisture probe
- stage gauge
- in-furrows sonic data logger
- RDS data logger
- rain gauge
- USGS monitoring well
- Global data logger



APPENDIX 4

Photographs of Planned Wetlands



Photograph 1. Planned wetland A.



Photograph 2. Planned wetland B.



Photograph 3. Planned wetland C.



Photograph 4. Planned wetland D.



Photograph 5. Planned wetland E.



Photograph 6. Planned wetland F.



Photograph 7. Planned wetland G.



Photograph 8. Planned wetland H.



Photograph 9. Planned wetland I.



Photograph 10. Planned wetland J.



Photograph 11. Planned wetland K.