

WETLAND MITIGATION SITE MONITORING REPORT-2005 MORRIS WETLAND BANK

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Introduction

This report details the second year of monitoring of the Morris Wetland Bank in Grundy County, Illinois. The Morris Wetland Bank is located near Morris, Illinois and is immediately east of IL Route 47 and south of 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). The first year of monitoring was conducted on 27-28 July and 20 September 2004. INHS personnel counted all live planted trees and performed wetland determinations at each site. In September 2004, 1096 additional trees were planted in order to replace trees that did not survive the first year. The second year of monitoring was conducted on 5-6 July and 27 September 2005. 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 any 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, 2004 to September 1, 2005* (Fucciolo et al. 2005).

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 1A) were planted at the planned wetland sites (A-K) on May 17 2004. In September 2004, 1096 additional trees were planted in order to replace trees that did not survive the initial planting (Matthew Sunderland, IDOT Project Manager, personal communication). The location, species, and number of the replacement trees are listed in Table 1B.

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: (Total number of live planted trees/number of known planted trees) x 100.

Table 1A. Number of trees and shrubs by species planted per site at the Morris Wetland Mitigation Bank in May 2004.

	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
American Hazlenut	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
Shumards 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

Table 1B. Number of replacement trees and shrubs by species planted per site at the Morris Wetland Mitigation Bank in September 2004.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	0	0	0	1	3	1	1	0	0	0	2	8
Bur Oak	0	0	0	0	0	2	0	5	0	0	0	7
Butternut	13	2	46	1	2	0	0	2	3	0	72	141
Black Walnut	16	3	106	3	1	10	4	125	19	7	294	588
Roughleaf Dogwood	0	0	0	0	0	0	0	0	0	0	0	0
American Hazlenut	0	0	4	0	0	0	0	0	0	0	0	4
Nannyberry	0	0	0	0	0	0	0	0	0	0	2	2
Shumards Oak	8	0	18	0	4	1	0	12	2	0	12	57
White Ash	0	0	3	0	2	1	0	6	0	0	1	13
Overcup Oak	0	0	0	0	0	0	0	0	0	0	0	0
Paw Paw	1	2	70	0	1	3	3	16	7	1	62	166
Sycamore	1	2	12	0	2	0	0	1	0	0	1	19
Swamp White Oak	2	0	5	0	6	0	0	7	0	0	15	35
Indigo Bush	0	0	0	0	0	0	0	0	0	0	0	0
Gray Dogwood	0	0	13	0	0	0	0	1	0	0	42	56

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.

c. Dominance of vegetation

Plant species dominance was determined as in Objective 1a. 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. In 2005, dominant hydrophytic vegetation was found in portions of sites C, H, and K. These are labeled C-1, H-1, and K-1 on the wetland forms and on the figure in Appendix 1. Sites A-1 and B-1 were found to have hydrophytic vegetation in 2004, but not in 2005.

b. Presence of wetland hydrology

The figure in Appendix 3 shows the areal extent of wetland hydrology at the Morris Wetland Mitigation Bank in 2005. Carr and Pociask (2005) found that the total area that satisfied the wetland hydrology criterion of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual for greater than 5% of the growing season was 1.75 ha (4.32 ac). The total area that satisfied the wetland criterion for greater than 12.5% of the growing season in 2005 was 1.13 ha (2.78 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 0.62 ha (1.54 ac). No area within the planned wetlands, according to well data, satisfied the wetland hydrology criterion for greater than 12.5% of the growing season.

According Carr and Pociask (2005), water levels measured in 3 of the 49 soil-zone monitoring wells (21S, 43S, and 43VS) satisfied the wetland hydrology criterion for a period greater than 5% of the growing season in 2005 (Appendix 3). No wells satisfied the wetland hydrology criterion for a period greater than 12.5% of the growing season (Carr and Pociask 2005).

Carr and Pociask (2005) also reported that in the 2004-2005 season, 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. These two floods occurred in December and January and were therefore outside of the growing season (Carr and Pociask 2005). 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 2005).

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 makes it clear that the hydrologic regime under which much of the hydric soil at this site developed is no longer present (i.e. the hydric soils are relict features). Presence of hydric soil is not the limiting factor of the jurisdictional status for any of these sites. More information on the soils at sites A-K can be found in the wetland forms in Appendix 2.

The portions of these sites which had wetland vegetation, soils, and hydrology in either 2004 or 2005 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 in 2004 was 3.05 ha (7.52 acres). Total wetland acreage in 2005 was 2.29 ha (5.65 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 2005; 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	2004		2005	
	Acres	Hectares	Acres	Hectares
A-1	1.39	0.56	0.00	0.00
B-1	0.49	0.20	0.00	0.00
C-1	0.82	0.33	0.82	0.33
H-1	0.63	0.26	0.63	0.26
K-1	4.19	1.70	4.19	1.70
Total	7.52	3.05	5.64	2.29

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 2005. Table 6 shows the percent survival. Overall, tree survival was 81.5% (6220 live trees out of 7630 originally planted). Percent survival by site and by tree or shrub species are shown in bold in Table 6. Tree survival was less than 80% at six sites (C, D, E, F, H, and J) although it was just slightly less than 80% at sites C (79.8%) and H (79.9%). Seven species had survival less than 80%. These were butternut, black walnut, hazelnut, Shumard's oak, paw paw, swamp white oak, and gray dogwood. While two species of oaks, Shumard's oak and swamp white oak, had low survival (54.0% and 61.0%, respectively), other species of oak had very high survival (146% for Burr oak). All oak species combined, however, had a percent survival of 91.7% (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.

Although no pecan trees (*Carya illinoensis*) were reported to be planted at the site, 81 young planted pecan trees were counted at the site. These are included in our totals.

Table 5. Number of live trees counted by INHS personnel at sites A-K at the Morris Wetland Mitigation Bank in 2005.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	17	1	167	8	35	20	9	38	16	4	84	399
Bur Oak	66	21	454	5	23	20	18	298	118	29	416	1468
Butternut	11	2	12	0	4	0	4	8	9	5	13	68
Black Walnut	24	3	200	5	1	4	11	73	46	15	136	518
Roughleaf Dogwood	19	4	31	1	8	6	6	23	9	1	49	157
American Hazlenut	3	0	25	1	4	0	2	15	0	0	9	59
Nannyberry	36	0	64	1	9	4	0	53	15	7	56	245
Shumards Oak	34	2	91	0	11	0	0	43	23	6	60	270
White Ash	8	1	63	2	5	3	11	23	10	1	34	161
Overcup Oak	18	1	77	1	7	1	1	29	9	8	47	199
Paw Paw	30	2	74	0	38	9	16	165	71	20	206	631
Sycamore	50	12	309	7	39	18	20	214	69	16	291	1045
Swamp White Oak	28	2	352	8	33	13	2	87	9	3	174	711
Indigo Bush	5	1	58	1	3	3	2	14	5	4	42	138
Gray Dogwood	1	0	30	1	0	1	0	17	0	0	20	70
Pecan	4	1	55	0	0	0	0	3	0	0	18	81
Totals	354	53	2062	41	220	102	102	1103	409	119	1655	6220

Table 6. Percent survival at sites A-K at the Morris Wetland Mitigation Bank in 2005.

	A	B	C	D	E	F	G	H	I	J	K	Totals
Pin Oak	77.3	33.3	112.8	200.0	184.2	200.0	128.6	50.0	84.2	44.4	72.4	92.1
Bur Oak	132.0	350.0	133.9	50.0	59.0	100.0	105.9	165.6	214.5	111.5	161.2	146.8
Butternut	137.5	100.0	26.1	0.0	66.7	0.0	133.3	26.7	112.5	166.7	30.2	43.6
Black Walnut	47.1	37.5	59.0	50.0	2.6	20.0	64.7	40.6	83.6	57.7	52.7	51.6
Roughleaf Dogwood	633.3	400.0	163.2	100.0	400.0	600.0	600.0	328.6	450.0	100.0	188.5	245.3
Hazelnut	60.0	0.0	69.4	100.0	80.0	0.0	200.0	68.2	0.0	0.0	50.0	59.0
Nannyberry	240.0	0.0	64.0	100.0	81.8	80.0	0.0	101.9	93.8	100.0	75.7	85.4
Shumard's Oak	136.0	100.0	53.5	0.0	55.0	0.0	0.0	47.8	79.3	60.0	46.2	54.0
White Ash	80.0	100.0	94.0	100.0	71.4	75.0	550.0	60.5	90.9	16.7	65.4	80.5
Overcup Oak	180.0	100.0	114.9	50.0	100.0	33.3	33.3	76.3	90.0	160.0	87.0	99.5
Paw Paw	50.8	33.3	18.7	0.0	84.4	37.5	84.2	78.6	110.9	71.4	67.8	54.6
Sycamore	84.7	200.0	78.0	63.6	84.8	69.2	100.0	101.9	107.8	59.3	95.7	89.4
Swamp White Oak	48.3	28.6	89.1	72.7	71.7	56.5	10.5	41.2	14.1	11.1	57.2	61.0
Indigo Bush	250.0	100.0	527.3	100.0	150.0	300.0	200.0	200.0	250.0	400.0	381.8	345.0
Gray Dogwood	12.5	0.0	53.6	100.0	0.0	25.0	0.0	56.7	0.0	0.0	47.6	42.9
Pecan	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Totals	91.9	112.8	79.8	65.1	73.3	65.4	81.0	79.9	98.6	65.0	83.0	81.5

Table 7. Percent survival of all oak species combined

	A	B	C	D	E	F	G	H	I	J	K	Totals
All oaks combined	97.7	140.0	101.5	70.6	82.6	81.4	71.9	81.8	98.4	61.4	89.2	91.7

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 the performance criterion of 90% native species. Values ranged from 48.3% to 69.3%. These values were lower than in 2004, however these percentages are not uncommon for recently abandoned old fields. As succession proceeds at the sites weedy, non-native species may be replaced by non-weedy natives. However, continued mowing will tend to slow this succession.

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 2004	70.2	70.0	69.0	61.8	70.9	76.7	63.6	60.6	63.5	65.4	65.5
Percent native species 2005	69.3	53.1	55.4	55.2	52.2	54.6	48.3	62.5	59.6	58.6	62.8

c. Dominance of vegetation

Dominant vegetation for sites A-K is listed on the wetland forms in Appendix 2. Sites that had significant portions that were both hydrophytic and non-hydrophytic in either 2004 or 2005 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 have weedy or non-native species among their three most dominant species. Therefore none of the sites 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>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria glauca</i> *
A-2	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Setaria glauca</i> *
B-1	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Taraxacum officinale</i> *
B-2	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Taraxacum officinale</i> *
C-1	<i>Elymus virginicus</i> , <i>Rorippa sylvestris</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>Elymus virginicus</i> , <i>Setaria faberi</i> *, <i>Setaria glauca</i> *
G	<i>Poa pratensis</i> *, <i>Setaria glauca</i> *, <i>Solidago canadensis</i>
H-1	<i>Aster simplex</i> , <i>Elymus virginicus</i> , <i>Populus deltoides</i> (sh)
H-2	<i>Elymus virginicus</i> , <i>Erigeron annuus</i> , <i>Solidago canadensis</i>
I	<i>Plantago rugelii</i> , <i>Setaria glauca</i> *, <i>Taraxacum officinale</i> *
J	<i>Daucus carota</i> *, <i>Poa pratensis</i> *, <i>Taraxacum officinale</i> *
K-1	<i>Aster simplex</i> , <i>Elymus virginicus</i> , <i>Setaria glauca</i> *
K-2	<i>Aster pilosus</i> , <i>Elymus virginicus</i> , <i>Poa pratensis</i> *

Discussion

Out of the 33.22 ha (109.0 acres) of planned wetland at the Morris Mitigation Bank, only 2.29 ha (5.64 acres) presently qualify as jurisdictional wetland (Appendix 2). This was down slightly from the amount of wetland acreage found in 2004 (3.05 ha (7.52 ac)). Wetland hydrology exists only in several small depressional areas and drainageways scattered throughout the site. ISGS personnel have been monitoring hydrology at the site for the past six years and the results for each year have not varied significantly. Precipitation in 2005, however, was just 51% of normal in the critical period from April to June (Carr and Posiask 2005) and wetland acreage could potentially increase somewhat in a normal year. It is doubtful, however, that the amount of jurisdictional wetland at the site will increase substantially over the next three 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 81.5% (of the original 7630 planted trees). This number is very close to the required 80% tree survival. It is likely that more trees will be lost in the following years of monitoring. It is recommended that additional replacement trees be planted at the site. During the tree censusing it was noted that a significant number of the wire beaver guards surrounding the trees had been bent or dislodged by mowers or flooding. Bent or leaning beaver guards are a serious impediment to the growth and survival of these young trees. It is recommended that beaver guards be checked periodically for damage. In addition, several large piles of dislodged beaver guards were seen scattered about the site. It is recommended that these be removed.

None of the planned wetland sites met the requirement of 90% native species. Values ranged from 48.3% to 69.3%. These values are not uncommon for recently abandoned old fields. There were no sites that did not have non-native or weedy species among the three most dominant species. As succession proceeds weedy non-native species may be replaced by non-weedy natives. Canada thistle (*Cirsium arvense*) is a dominant at two sites. Canada thistle is a state-listed noxious weed in Illinois and therefore should be eliminated from these sites.

Literature Cited

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APPENDIX 1

Locations of Planned Wetlands

APPENDIX 2

Wetland Delineation Forms

Morris Mitigation Bank Site Grundy County



- Wetland sites
- Sites with wetland vegetation in 2004 but not 2005
- Wetland restoration sites



scale 1:14,400
1 inch=1200 ft



ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 1 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Aster pilosus</i>	FACU+	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <i>Setaria glauca</i>	FAC	herb
4. <i>Taraxacum officinale</i>	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 50%

Hydrophytic vegetation: Yes: No: **Rationale:** Not 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 4/3Redox 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 A (page 2 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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: No: X**Rationale:** There is not sufficient field evidence to indicate that this site was inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion in 2005.**DETERMINATION AND RATIONALE (A-1)****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, we determined that this site is not a wetland. This site was found to be a wetland in 2004; however total precipitation for the site during the current monitoring period was 83% of normal and in the critical April to June period it dropped to only 51% of normal (Carr and Pociask 2005). Wetland hydrology and vegetation could potentially return to the site in a year with average precipitation. The NWI coded this entire site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 3 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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/ARedox 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 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 NWI coded this entire site as upland (U).

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 5 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Agrostis alba</i>	redtop	herb	FACW	0
<i>Amaranthus tuberculatus</i>	water hemp	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 ontarionis</i>	Ontario aster	herb	FAC	4
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bidens connata</i>	purplestem beggar-ticks	herb	OBL	2
<i>Bidens tripartita</i>	beggartick	herb	OBL	2
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Carex</i> sp.	sedge	herb	---	--
<i>Celtis occidentalis</i>	hackberry	shrub	FAC-	3
<i>Cercis canadensis</i>	redbud	shrub, herb	FACU	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Cyperus esculentus</i>	yellow nut-sedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Dipsacus sylvestris</i>	common teasel	herb	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	shrub, herb	FACW	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 6 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Geum canadense</i>	white avens	herb	FAC	2
<i>Geum laciniatum</i>	marsh avens	herb	FACW	2
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Hordeum jubatum</i>	squirreltail barley	herb	FAC+	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2
<i>Juglans cinerea</i>	butternut	shrub	FACU+	8
<i>Juglans nigra</i>	black walnut	shrub	FACU	4
<i>Lactuca saligna</i>	willow lettuce	herb	FACU	*
<i>Lactuca serriola</i>	prickly lettuce	herb	FAC	*
<i>Lepidium virginicum</i>	common pepper-cress	herb	FACU-	0
<i>Lycopus americanus</i>	bugleweed	herb	OBL	3
<i>Medicago sativa</i>	alfalfa	herb	UPL	*
<i>Morus alba</i>	white mulberry	herb	FAC	*
<i>Oxalis dillenii</i>	yellow wood-sorrel	herb	FACU	0
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	woody vine	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Physalis subglabrata</i>	smooth ground cherry	herb	UPL	0
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC+	0
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Populus deltoides</i>	cottonwood	shrub, herb	FAC+	2
<i>Rorippa islandica</i>	yellow marsh cress	herb	OBL	4
<i>Rudbeckia laciniata</i>	tall coneflower	herb	FACW+	3
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Salix nigra</i>	black willow	shrub, herb	OBL	3
<i>Sanicula gregaria</i>	black snakeroot	herb	FAC+	2
<i>Senecio glabellus</i>	butterweed	herb	OBL	0
<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 catbrier	woody vine	FAC	3

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site A (page 7 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Solanum caroliniense</i>	horse nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Sonchus arvensis</i>	spreading sow-thistle	herb	FAC-	*
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Thlaspi arvense</i>	field penny-cress	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Tridens flavus</i>	false red top	herb	UPL	1
<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>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 99/52 = 1.9$$

$$FQI = \sum C/\sqrt{N} = 99/\sqrt{52} = 13.7$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm

(vegetation and hydrology)

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Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 1 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 pilosus</i>	FACU+	herb
2. <i>Elymus virginicus</i>	FACW-	herb
3. <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 (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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 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: No: X**Rationale:** There is not sufficient field evidence to indicate that this site was inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion in 2005.**DETERMINATION AND RATIONALE (B-1)****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, we determined that this site is not a wetland. This site was found to be a wetland in 2004; however total precipitation for the site during the current monitoring period was 83% of normal and in the critical April to June period it dropped to only 51% of normal (Carr and Pociask 2005). Wetland hydrology and vegetation could potentially return to the site in a year with average precipitation. The NWI did not identify this site as a wetland.

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 4 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Carex</i> sp.	sedge	herb	---	--
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Cyperus esculentus</i>	yellow nut-sedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Ipomoea lacunosa</i>	small morning glory	herb	FACW	1
<i>Ipomoea pandurata</i>	wild sweet potato vine	vine	FACU	2
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Physalis subglabrata</i>	smooth ground cherry	herb	UPL	0
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC+	0
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum persicaria</i>	lady's-thumb	herb	FACW	*
<i>Polygonum</i> sp.	smartweed	herb	--	--
<i>Ranunculus abortivus</i>	little-leaf buttercup	herb	FACW-	1
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<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

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site B (page 6 of 6)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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 *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>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<i>Trifolium pratense</i>	red clover	herb	FACU+	*

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 24/17 = 1.4$$

$$FQI = \sum C/\sqrt{N} = 24/\sqrt{17} = 5.8$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm
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Scott Wiesbrook (soils and hydrology)
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615 East Peabody Drive
Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 1 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Elymus virginicus</i>	FACW-	herb
2. <i>Setaria glauca</i>	FAC	herb
3. <i>Polygonum aviculare</i>	FAC-	herb
4. <i>Rorippa sylvestris</i>	OBL	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 75%

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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 4 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Agropyron repens</i>	quack grass	herb	FACU	*
<i>Agrostis alba</i>	redtop	herb	FACW	0
<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>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Brassica kaber</i>	charlock	herb	UPL	0
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Capsella bursa-pastoris</i>	sheperd's-purse	herb	FAC-	*
<i>Carex normalis</i>	sedge	herb	FACW	4
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cichorium intybus</i>	chicory	herb	UPL	*
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Dipsacus sylvestris</i>	teasel	herb	NI	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	tall 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	shrub, herb	FAC	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 6 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Hordeum jubatum</i>	squirreltail barley	herb	FAC+	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2
<i>Lactuca saligna</i>	willow lettuce	herb	FACU	*
<i>Lonicera maackii</i>	Amur honeysuckle	shrub	UPL	*
<i>Malus</i> sp.	crabapple	shrub	--	--
<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>Oxalis dillenii</i>	yellow wood-sorrel	herb	FACU	0
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Physalis subglabrata</i>	smooth ground-cherry	herb	UPL	0
<i>Plantago lanceolata</i>	buckhorn plantain	herb	FAC	*
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC+	0
<i>Poa compressa</i>	Canada bluegrass	herb	FACU+	*
<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>Populus deltoides</i>	cottonwood	shrub, herb	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Quercus bicolor</i>	swamp white oak	shrub	FACW+	7
<i>Rorippa islandica</i>	yellow marsh cress	herb	OBL	4
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia laciniata</i>	tall 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>	elderberry	shrub	FACW-	2
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 7 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Setaria viridis</i>	common foxtail	herb	UPL	*
<i>Sicyos angulatus</i>	bur cucumber	vine	FACW-	3
<i>Sida spinosa</i>	prickly sida	herb	FACU	*
<i>Smilax hispida</i>	bristly catbrier	woody vine	FAC	3
<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	herb	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Ulmus pumila</i>	Siberian elm	shrub, herb	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbascum thapsus</i>	common mullein	herb	UPL	*
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 66/41 = 1.6$$

$$FQI = \sum C / \sqrt{N} = 66/\sqrt{41} = 10.3$$

ROUTINE ONSITE WETLAND DETERMINATION

Site C (page 8 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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.

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
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615 East Peabody Drive
Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site D (page 2 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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).

ROUTINE ONSITE WETLAND DETERMINATION

Site D (page 3 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Agropyron repens</i>	quack grass	herb	FACU	*
<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>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>Bromus commutatus</i>	hairy brome	herb	UPL	*
<i>Capsella bursa-pastoris</i>	sheperd's-purse	herb	FAC-	*
<i>Carex</i> sp.	sedge	herb	---	--
<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>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cryptotaenia canadensis</i>	honewort	herb	FAC	1
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<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
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Leonurus marrubiastrum</i>	lion's-tail	herb	UPL	*
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<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

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site D (page 4 of 4)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum</i> sp.	smartweed	herb	----	--
<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>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
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft et al. 1997)

$$\bar{C} = \sum C/N = 31/21 = 1.5$$

*Non-native species

$$FQI = \sum C/\sqrt{N} = 31/\sqrt{21} = 6.8$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
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Scott Wiesbrook (soils and hydrology)
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Keith Carr and Geoff Pociask (hydrology)
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615 East Peabody Drive
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ROUTINE ONSITE WETLAND DETERMINATION

Site E (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Agrostis alba</i>	red top	herb	FACW	0
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bromus commutatus</i>	hairy brome	herb	UPL	*
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Capsella bursa-pastoris</i>	sheperd's-purse	herb	FAC-	*
<i>Carex</i> sp.	sedge	herb	----	--
<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>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>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<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>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site E (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Muhlenbergia schreberi</i>	nimble will	herb	FAC	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	woody vine	FAC-	2
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<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 aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Ranunculus abortivus</i>	little-leaf buttercup	herb	FACW-	1
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<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 glauca</i>	pigeon grass	herb	FAC	*
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Sisymbrium</i> sp.	mustard	herb	----	--
<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>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Verbesina alternifolia</i>	wing stem	herb	FACW	4
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 36/25 = 1.4$$

$$FQI = \sum C/\sqrt{N} = 36/\sqrt{25} = 7.2$$

ROUTINE ONSITE WETLAND DETERMINATION

Site E (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
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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 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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	FACW-	1
<i>Agrostis alba</i>	red top	herb	FACW	0
<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>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bromus commutatus</i>	hairy brome	herb	UPL	*
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Capsella bursa-pastoris</i>	shepherd's-purse	herb	FAC-	*
<i>Carex</i> sp.	sedge	herb	----	--
<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>Cynanchum laeve</i>	blue vine	vine	FAC	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site F (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<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>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Helenium autumnale</i>	sneezeweed	herb	FACW+	3
<i>Hordeum jubatum</i>	squirrel-tail	herb	FAC+	*
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<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 aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum pennsylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<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	vine	FACW-	3
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site F (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Thlaspi arvense</i>	field penny cress	herb	UPL	*
<i>Toxicodendron radicans</i>	poison ivy	woody vine	FAC+	1
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Ulmus pumila</i>	Siberian elm	herb	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<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

†Coefficient of Conservatism (Taft et al. 1997)

$$\bar{C} = \sum C/N = 45/30 = 1.5$$

*Non-native species

$$FQI = \sum C/\sqrt{N} = 45/\sqrt{30} = 8.2$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
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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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Poa pratensis</i>	FAC-	herb
2. <i>Setaria glauca</i>	FAC	herb
3. <i>Solidago canadensis</i>	FACU	herb
4. <i>Trifolium repens</i>	FACU+	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 4/3Redox 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 G (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Agropyron repens</i>	quack grass	herb	FACU	*
<i>Agrostis alba</i>	red top	herb	FACW	0
<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>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>	panicled aster	herb	FACW	3
<i>Bromus commutatus</i>	hairy brome	herb	UPL	*
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Carex</i> sp.	sedge	herb	----	--
<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>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

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site G (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	herb	FACW	2
<i>Lepidium virginicum</i>	common peppergrass	herb	FACU-	0
<i>Lotus corniculatus</i>	birdsfoot-trefoil	herb	FAC-	*
<i>Malva neglecta</i>	cheeses	herb	UPL	*
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	tree	FAC	*
<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>Phleum pratense</i>	Timothy	herb	FACU	*
<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 persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<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>Salix amygdaloides</i>	peach-leaved willow	tree	FACW	4
<i>Salix exigua</i>	sandbar willow	herb	OBL	1
<i>Sanicula odorata</i>	common snakeroot	herb	FAC+	2
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sida spinosa</i>	prickly sida	herb	FACU	*

Species list continued on the next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site G (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Sisymbrium</i> sp.	mustard	herb	----	--
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Thlaspi arvense</i>	field penny cress	herb	UPL	*
<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>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Ulmus pumila</i>	Siberian elm	herb	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbascum thapsus</i>	woolly mullein	herb	UPL	*
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft et al. 1997)

$$\bar{C} = \sum C/N = 42/29 = 1.5$$

*Non-native species

$$FQI = \sum C/\sqrt{N} = 42/\sqrt{29} = 7.8$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
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ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 2 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 drainageway. 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 4 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 H-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, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>	velvetleaf	herb	FACU-	*
<i>Acalypha rhomboidea</i>	three-seeded mercury	herb	FACU	0
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Amorpha fruticosa</i>	false indigo bush	shrub	FACW+	6
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Bidens tripartita</i>	beggartick	herb	OBL	2
<i>Brassica kaber</i>	charlock	herb	UPL	0
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Carex conjuncta</i>	sedge	herb	FACW	5
<i>Carex molesta</i>	sedge	herb	FAC	2
<i>Carex normalis</i>	sedge	herb	FACW	4
<i>Carex</i> sp.	sedge	herb	----	--
<i>Cichorium intybus</i>	chicory	herb	UPL	*
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Cyperus esculentus</i>	yellow nutsedge	herb	FACW	0
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elaeagnus umbellata</i>	autumn olive	shrub	UPL	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 6 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Euphorbia maculata</i>	nodding spruce	herb	FACU-	0
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Geum laciniatum</i>	marsh avens	herb	FACW	2
<i>Glechoma hederacea</i>	creeping Charlie	herb	FACU	*
<i>Gleditsia triacanthos</i>	honey locust	shrub, herb	FAC	2
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Hordeum jubatum</i>	squirreltail barley	herb	FAC+	*
<i>Hypericum perforatum</i>	St. John's-wort	herb	UPL	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2
<i>Leersia virginica</i>	white grass	herb	FACW	4
<i>Lepidium campestre</i>	field peppergrass	herb	UPL	*
<i>Lepidium virginicum</i>	common pepper-cress	herb	FACU-	0
<i>Lycopus americanus</i>	bugleweed	herb	OBL	3
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Maclura pomifera</i>	Osage orange	shrub	FACU	*
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Medicago sativa</i>	alfalfa	herb	UPL	*
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	shrub, herb	FAC	*
<i>Muhlenbergia schreberi</i>	nimble will	herb	FAC	0
<i>Oxalis dillenii</i>	yellow wood-sorrel	herb	FACU	0
<i>Panicum capillare</i>	witch grass	herb	FAC	0
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Panicum virgatum</i>	prairie switchgrass	herb	FAC+	4
<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

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 7 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Physalis subglabrata</i>	smooth ground-cherry	herb	UPL	0
<i>Plantago lanceolata</i>	buckhorn plantain	herb	FAC	*
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC+	0
<i>Platanus occidentalis</i>	sycamore	shrub	FACW	3
<i>Poa compressa</i>	Canada bluegrass	herb	FACU+	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum aviculare</i>	knotweed	herb	FAC-	*
<i>Polygonum lapathifolium</i>	curttop lady's thumb	herb	FACW+	0
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Polygonum scandens</i>	climbing knotweed	herb	FAC	2
<i>Populus deltoides</i>	eastern cottonwood	shrub, herb	FAC+	2
<i>Ptelea trifoliata</i>	wafer ash	shrub	FACU+	4
<i>Rorippa islandica</i>	yellow marsh cress	herb	OBL	4
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<i>Rudbeckia laciniata</i>	tall 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>Silphium perfoliatum</i>	cup-plant	herb	FACW-	4
<i>Sisymbrium</i> sp.	mustard	herb	----	--
<i>Solanum carolinense</i>	horse-nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Teucrium canadense</i>	American germander	herb	FACW-	3
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site H (page 7 of 7)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<i>Tridens flavus</i>	false red top	herb	UPL	1
<i>Trifolium pratense</i>	red clover	herb	FACU+	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Ulmus pumila</i>	Siberian elm	tree	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbascum blattaria</i>	moth mullein	herb	FACU-	*
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<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)

$$\bar{C} = \sum C/N = 100/60 = 1.7$$

*Non-native species

$$FQI = \sum C/\sqrt{N} = 100/\sqrt{60} = 12.9$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
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ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>	velvetleaf	herb	FACU-	*
<i>Acer negundo</i>	box elder	shrub, herb	FACW-	1
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Amaranthus tuberculatus</i>	water hemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster ontarionis</i>	Ontario aster	herb	FAC	4
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Carduus nutans</i>	nodding thistle	herb	UPL	*
<i>Carex conjuncta</i>	sedge	herb	FACW	5
<i>Celtis occidentalis</i>	hackberry	shrub, herb	FAC-	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cryptotaenia canadensis</i>	honewort	herb	FAC	1
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elaeagnus umbellata</i>	autumn olive	shrub	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Fraxinus pennsylvanica</i>	green ash	shrub, herb	FACW	2
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Glechoma hederacea</i>	creeping Charlie	herb	FACU	*
<i>Hordeum jubatum</i>	squirreltail barley	herb	FAC+	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2
<i>Juglans cinerea</i>	butternut	shrub	FACU+	8
<i>Juglans nigra</i>	black walnut	shrub	FACU	4
<i>Lactuca floridana</i>	blue lettuce	herb	FAC-	4
<i>Lactuca serriola</i>	prickly lettuce	herb	FAC	*
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Lepidium virginicum</i>	common pepper-cress	herb	FACU-	0
<i>Lonicera maackii</i>	Amur honeysuckle	shrub	UPL	*
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Medicago lupulina</i>	black medic	herb	FAC-	*
<i>Medicago sativa</i>	alfalfa	herb	UPL	*
<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 schreberi</i>	nimble-will	herb	FAC	0
<i>Myosoton aquaticum</i>	giant chickweed	herb	FAC+	*
<i>Oxalis dillenii</i>	yellow wood-sorrel	herb	FACU	0
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	woody vine	FAC-	2
<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 lanceolata</i>	buckhorn plantain	herb	FAC	*
<i>Plantago rugelii</i>	Rugel's 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 punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	shrub, herb	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Prunella vulgaris</i>	self-heal	herb	FAC	1
<i>Ptelea trifoliata</i>	wafer ash	shrub	FACU+	4
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia laciniata</i>	tall coneflower	herb	FACW+	3
<i>Ruellia strepens</i>	smooth ruellia	herb	FAC+	6
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<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>Sonchus arvensis</i>	spreading sow-thistle	herb	FAC-	*
<i>Stachys tenuifolia</i>	hedge nettle	herb	FACW+	5
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<i>Tridens flavus</i>	false red top	herb	UPL	1

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site I (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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>Ulmus pumila</i>	Siberian elm	shrub, herb	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 100/53 = 1.9$$

$$FQI = \sum C \sqrt{N} = 100/\sqrt{53} = 13.7$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
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ROUTINE ONSITE WETLAND DETERMINATION

Site J (page 2 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Agrostis alba</i>	redtop	herb	FACW	0
<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 ontarionis</i>	Ontario aster	herb	FAC	4
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Capsella bursa-pastoris</i>	sheperd's-purse	herb	FAC-	*
<i>Carex conjuncta</i>	sedge	herb	FACW	5
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Chaerophyllum procumbens</i>	wild chervil	herb	FAC+	1
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elymus villosus</i>	silky wild rye	herb	FACU	4
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Geum laciniatum</i>	marsh avens	herb	FACW	2
<i>Glechoma hederacea</i>	creeping Charlie	herb	FACU	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site J (page 4 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Lactuca serriola</i>	prickly lettuce	herb	FAC	*
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Lepidium virginicum</i>	common pepper-cress	herb	FACU-	0
<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>Myosoton aquaticum</i>	giant chickweed	herb	FAC+	*
<i>Oenothera biennis</i>	evening primrose	herb	FACU	1
<i>Oxalis dillenii</i>	yellow wood-sorrel	herb	FACU	0
<i>Penstemon digitalis</i>	foxglove beardtongue	herb	FAC-	4
<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>Physalis subglabrata</i>	smooth ground-cherry	herb	UPL	0
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC+	0
<i>Poa compressa</i>	Canada bluegrass	herb	FACU+	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Populus deltoides</i>	cottonwood	shrub, herb	FAC+	2
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<i>Rudbeckia laciniata</i>	tall 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>	elderberry	shrub	FACW-	2
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sicyos angulatus</i>	bur cucumber	vine	FACW-	3
<i>Sisymbrium</i> sp.	mustard	herb	----	--
<i>Solanum carolinense</i>	horse nettle	herb	FACU-	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site J (page 5 of 5)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Teucrium canadense</i>	American germander	herb	FACW-	3
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<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>Verbascum blattaria</i>	moth mullein	herb	FACU-	*
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2

†Coefficient of Conservatism (Taft et al. 1997)

$$\bar{C} = \sum C/N = 73/41 = 1.8$$

*Non-native species

$$FQI = \sum C/\sqrt{N} = 73/\sqrt{41} = 11.4$$

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
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Champaign, Illinois 61820

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 1 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 easternmost 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>Bidens tripartita</i>	OBL	herb
3. <i>Elymus virginicus</i>	FACW-	herb
4. <i>Polygonum amphibium</i>	OBL	herb
5. <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 (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 4/3Redox 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 K (page 2 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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: 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 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: 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. Also, ISGS soil-zone wells #21 and #43 which are located within site K-1 satisfied the wetland hydrology criteria for > 5% of the growing season.

DETERMINATION AND RATIONALE (K-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.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 4 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm**Date:** 5, 6 July and 27 September 2005 **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 easternmost 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.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 5 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>	velvetleaf	herb	FACU-	*
<i>Agropyron repens</i>	quack grass	herb	FACU	*
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Amaranthus tuberculatus</i>	water hemp	herb	OBL	1
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<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>Asclepias verticillata</i>	horsetail milkweed	herb	UPL	1
<i>Aster ericoides</i>	heath aster	herb	FACU-	4
<i>Aster ontarionis</i>	Ontario aster	herb	FAC	4
<i>Aster pilosus</i>	field aster	herb	FACU+	0
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bidens aristosa</i>	swamp marigold	herb	FACW	1
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Bidens tripartita</i>	beggartick	herb	OBL	2
<i>Boltonia asteroides</i>	false aster	herb	FACW	5
<i>Bromus inermis</i>	smooth brome	herb	UPL	*
<i>Bromus japonicus</i>	Japanese brome	herb	FACU	*
<i>Campsis radicans</i>	trumpet creeper	shrub	FAC	2
<i>Carex conjuncta</i>	green-headed fox sedge	herb	FACW	5
<i>Carex grayi</i>	bur sedge	herb	FACW+	6
<i>Carex normalis</i>	sedge	herb	FACW	4
<i>Carex</i> sp.	sedge	herb	--	--
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Celtis occidentalis</i>	hackberry	shrub, herb	FAC-	3
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cichorium intybus</i>	chicory	herb	UPL	*
<i>Cirsium arvense</i>	creeping thistle	herb	FACU	*
<i>Cirsium discolor</i>	field thistle	herb	UPL	2

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 6 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Coronilla varia</i>	crown vetch	herb	UPL	*
<i>Cynanchum laeve</i>	climbing milkweed	herb	FAC	1
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Elaeagnus umbellata</i>	autumn olive	shrub	UPL	*
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Erigeron strigosus</i>	daisy fleabane	herb	FAC-	2
<i>Eupatorium altissimum</i>	white snakeroot	herb	FACU	1
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	tall fescue	herb	FACU-	*
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Geum laciniatum</i>	marsh avens	herb	FACW	2
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Gleditsia triacanthos</i>	honey locust	herb	FAC	2
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Hordeum jubatum</i>	squirreltail barley	herb	FAC+	*
<i>Ipomoea pandurata</i>	wild sweet potato vine	herb	FACU	2
<i>Juglans nigra</i>	black walnut	shrub, herb	FACU	4
<i>Lactuca saligna</i>	willow lettuce	herb	FACU	*
<i>Lycopus americanus</i>	bugleweed	herb	OBL	3
<i>Lysimachia nummularia</i>	moneywort	herb	FACW+	*
<i>Medicago sativa</i>	alfalfa	herb	UPL	*
<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>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 7 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **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.

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SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Pastinaca sativa</i>	wild parsnip	herb	UPL	*
<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>Physostegia virginiana</i>	obedient plant	herb	FACW	6
<i>Plantago rugelii</i>	Rugel's 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>	lady's-thumb	herb	FACW	*
<i>Polygonum sp.</i>	smartweed	herb	--	--
<i>Populus deltoides</i>	cottonwood	shrub, herb	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Ptelea trifoliata</i>	wafer ash	shrub	FACU+	4
<i>Ranunculus abortivus</i>	kidneyleaf buttercup	herb	FACW-	1
<i>Rorippa islandica</i>	yellow marsh cress	herb	OBL	4
<i>Rorippa sylvestris</i>	creeping yellow cress	herb	OBL	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rudbeckia laciniata</i>	tall coneflower	herb	FACW+	3
<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>Salix nigra</i>	black willow	shrub, herb	OBL	3
<i>Sambucus canadensis</i>	elderberry	shrub	FACW-	2
<i>Senecio glabellus</i>	butterweed	herb	OBL	0
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Setaria glauca</i>	pigeon grass	herb	FAC	*
<i>Sida spinosa</i>	prickly sida	herb	FACU	*

Species list continued on next page.

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 6 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

Date: 5, 6 July and 27 September 2005 **Project Name:** Morris Wetland Bank

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SPECIES LIST *continued*

Scientific name	Common name	Stratum	Wetland indicator status	C†
<i>Solanum carolinense</i>	horse nettle	herb	FACU-	0
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	spreading sow-thistle	herb	FAC-	*
<i>Taraxacum officinale</i>	dandelion	herb	FACU	*
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Tragopogon dubius</i>	goat's beard	herb	UPL	*
<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>Verbascum blattaria</i>	moth mullein	herb	FACU-	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<i>Veronica peregrina</i>	purslane speedwell	herb	FACW+	0
<i>Vitis riparia</i>	riverbank grape	woody vine	FACW-	2
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

†Coefficient of Conservatism (Taft et al. 1997)

*Non-native species

$$\bar{C} = \sum C/N = 126/64 = 2.1$$

$$FQI = \sum C / \sqrt{N} = 126/\sqrt{64} = 16.4$$

ROUTINE ONSITE WETLAND DETERMINATION

Site K (page 8 of 8)

Field Investigators: Feist, Wiesbrook, Zercher, Tessene, Matthews, Marcum, Ketzner, and Wilm

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

Determined by: Mary Ann Feist, Paul Tessene, Jeff Matthews,
Paul Marcum, Dave Ketzner, and Brian Wilm
(vegetation and hydrology)
Scott Wiesbrook (soils and hydrology)
Brad Zercher (GPS)
Illinois Natural History Survey
607 East Peabody Drive
Champaign, Illinois 61820
(217) 244-6858 (Feist)

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

APPENDIX 3

Hydrological Information

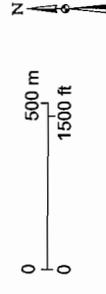
Morris, Illinois River Wetland Bank Site
Estimated Areal Extent of 2005 Wetland Hydrology
 based on data collected between September 1, 2004 and September 1, 2005
 Map based on USGS digital orthophotograph, Morris NE quarter quadrangle
 from 4/5/1988 aerial photography (ISGS 2001)



LEGEND

- 2005 WETLAND HYDROLOGY**
-  > 5% of the growing season
 -  > 12.5% of the growing season
 -  approximate site boundary

-  soil-moisture probe
-  stage gauge
-  Infinities sonic data logger
-  RDS data logger
-  rain gauge
-  ISGS 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.