

**An Assessment of the Biological Resources Associated with the
US Route 30 Addendum Project Corridor, Whiteside County
Illinois**

**Illinois Natural History Survey
Division of Ecology & Conservation Sciences
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CHAPTER 1: Environmental Setting

William Handel

Location

The sections below describe the location, geography, and vegetation history of the original Illinois Department of Transportation US Route 30 project corridor and Addendum 1 in Whiteside County, Illinois. This corridor extends from the intersection of US Route 30/Prophetstown Road in Rock Falls (Coloma Township) westward to Illinois 84, east of Fulton, Whiteside County. The study area is approximately 35,061.2 acres in size. **Figure 1-1** is a map of the study corridor. Field assessments of the biological resources were conducted from April 2007 to November 2008. For information that refers only to the original US 30 corridor see Zylka et. al. 2008.

Physical Geography

The US Route 30 project corridor landscape is comprised of three major landforms: sand deposits, uplands, and floodplains. These landforms are the products of past continental glaciations and more recent stream erosion. The sand deposits occur on the western side of the study corridor (**Figure 1-2**). They include a large dune complex on the southern edge of the study corridor near the Chicago Northwestern Railroad line and a portion of the bluff east of Cattail Creek. This bluff rises approximately 120 feet above Cattail Creek; the highest point is approximately 720 feet above sea level. Areas with sand prairie vegetation in the corridor are mapped as Plainfield sand (Sabata 1995). This same soil series is the dominant soil series at Thomson-Fulton Sand Prairie Nature Preserve. This nature preserve occurs a few miles north of the project corridor in Whiteside County. The uplands portion of the study corridor begins where wind blown loess becomes the prominent soil parent material along the bluff line east of Cattail Creek (**Figure 1-2**). The uplands from the bluff line to the town of Morrison, and all of Addendum 1 are rolling hills of loess and glacial till deposits. These hills decrease and the land becomes level and less rolling toward the eastern end of the corridor near Elkhorn Creek. The largest area of floodplain occurs in the western end of the corridor along the Mississippi River including Cattail Creek. Smaller areas of floodplain exist along Rock Creek near Morrison, and at the eastern end of the corridor along Elkhorn Creek and the Rock River (**Figure 1-2**).

The US Route 30 project corridor crosses three Natural Divisions of Illinois; approximately 95% of the corridor lies within Rock River Hill Country Natural Division (The Illinois Comprehensive Wildlife Conservation Plan & Strategy 2007). The far western and eastern portions, near the towns of Fulton and Rock Falls, are in the Upper Mississippi/Illinois River Bottomlands Division comprising 1% of the corridor. Two small areas of the Illinois/Mississippi Sand Area Division exist in the corridor totaling 4% of the corridor. These areas include the large dune complex on the southern edge of the study corridor near the Chicago Northwestern Railroad and a large portion of the bluff east of Cattail Creek.

Vegetation History

The pre-settlement vegetation in Illinois (early 1800's) was a patchwork of prairie and forest. Approximately 55% of the state consisted of prairie (Szafoni et al. 2002). **Figure 1-3** illustrates the US Route 30 pre-settlement vegetation. The original corridor is outlined in red and Addendum 1 is outlined in blue. Prairie once covered roughly 75% of the area within the IL Route 30 study corridor, forest covered 15%, and the remaining 10% consisted of "bottomland", "cultural", "swamp", and "water" land-cover types (**Figure 1-3**). In 1996, Whiteside County consisted of 67.8% cropland (302,961 acres), 20.6% forest/woodland (91,946 acres), 2.0%

wetlands (9,023 acres), and 2.1% urban/built-up land (9,489 acres) (Whiteside County Illinois Land Cover, July 1996).

At finer landscape scales, vegetation in Illinois consisted of more than just prairie and forest. Pre-settlement habitat types that occurred within the IL Route 30 project corridor included prairie in the uplands, bottomland forest, marsh and sedge meadow communities, and a complex of savanna, woodland, forest, and loess hill prairies associated with the bluffs. Prairie was the dominant cover type in the uplands of the Rock River Hill Country Natural Division, with forest occupying the adjacent stream and river drainages such as the Deer and Rock creeks. The bluff west of Cattail Creek also had some forested areas. Small areas of bottomland forest occurred near the far western edge of the corridor near the Mississippi River, and on the far eastern edge of the corridor, along the Rock River. A portion of a large peat deposit occurs within the corridor along Cattail Creek. The former Cattail Slough, the single largest peat deposit in Illinois, is a one-mile wide valley extending about 12 miles long, with peat measured to a depth of 30 feet (Soper and Osbon 1922). The peat presently is mined just outside the project limits south of Garden Plain Road (pers. observation, Handel 2007). This area has all been ditched and drained and the only portion of Cattail Slough that remains a shallow marsh occurs just outside the study corridor north of IL 136 near Fulton (**Figure 1-4**). Figure 1-4 illustrates where the current peat soils are located within the study corridor.

Fire was a major ecological component that helped maintain the tall grass prairie, savanna, and open woodland vegetation in the Midwest (Anderson 1970, 1983; Axelrod 1985; Taft 1997). A major decline in fire frequency in contemporary times has resulted in dramatic changes to these vegetation types and this study corridor was no exception. Furthermore, Illinois forests, wetlands, and especially prairies and savannas have declined dramatically in extent and quality with settlement, particularly because of fragmentation, exotic species infestations, and fire absence. Results from the statewide Illinois Natural Areas Inventory (INAI), an ongoing survey of significant natural communities and biotic resources (discussed in more detail later in this chapter), revealed that only 0.07% of the state remained in a condition of high ecological integrity (White 1978).

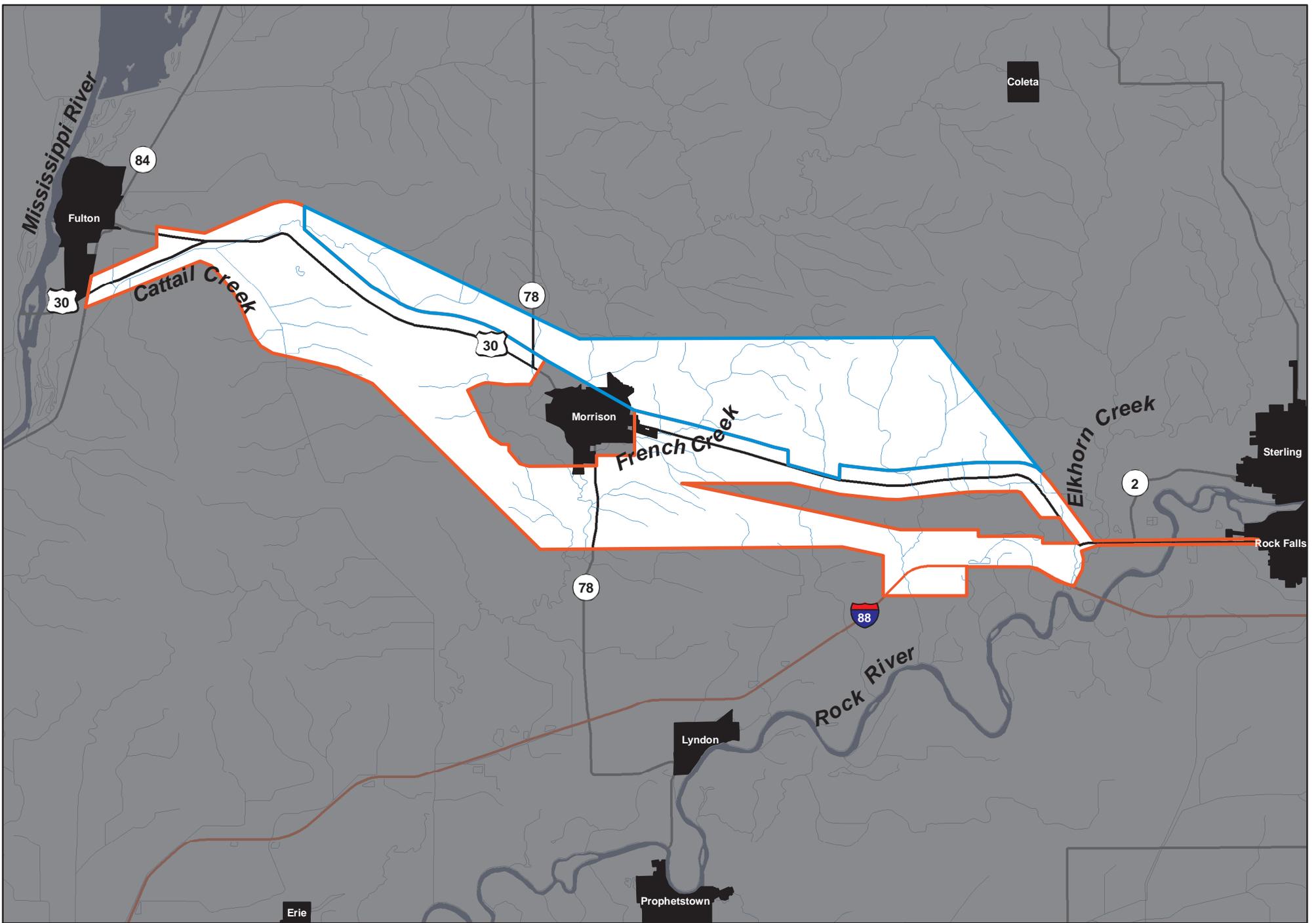


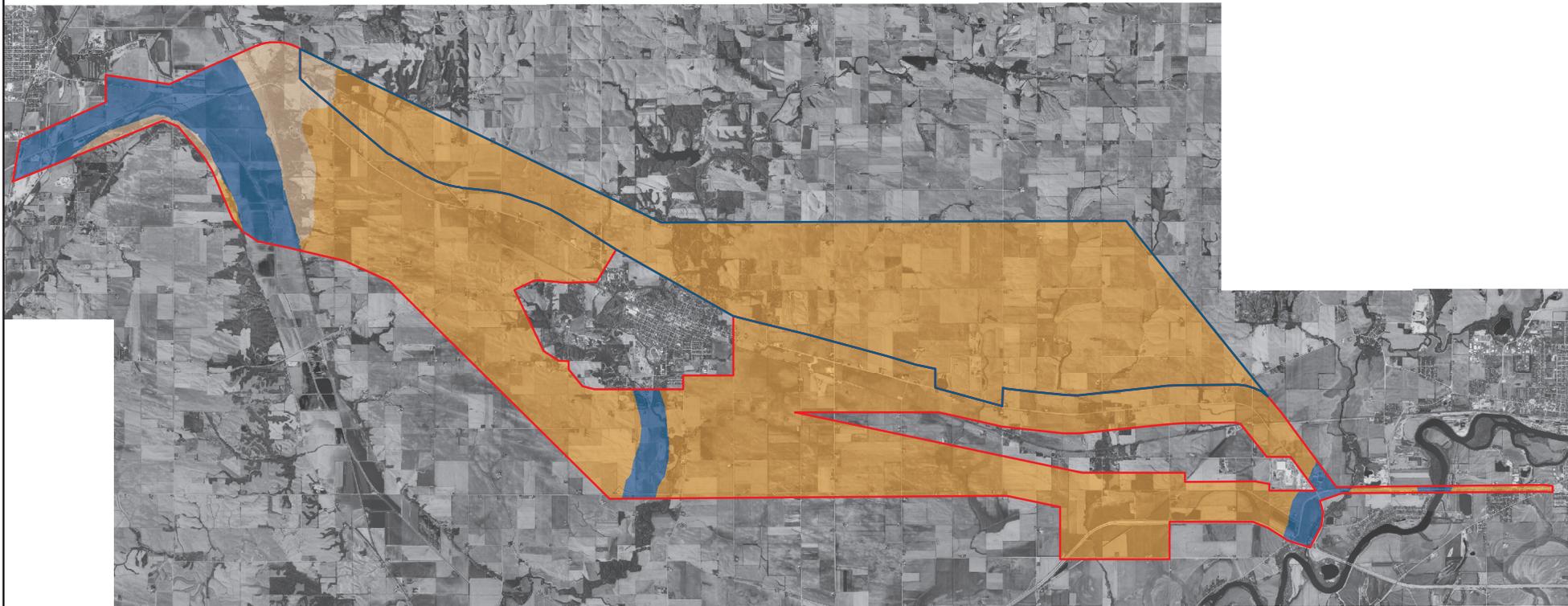
Figure 1-1 Map of Route 30 Corridor

INHS

- Original US 30 Corridor
- Addendum 1

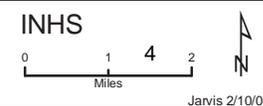
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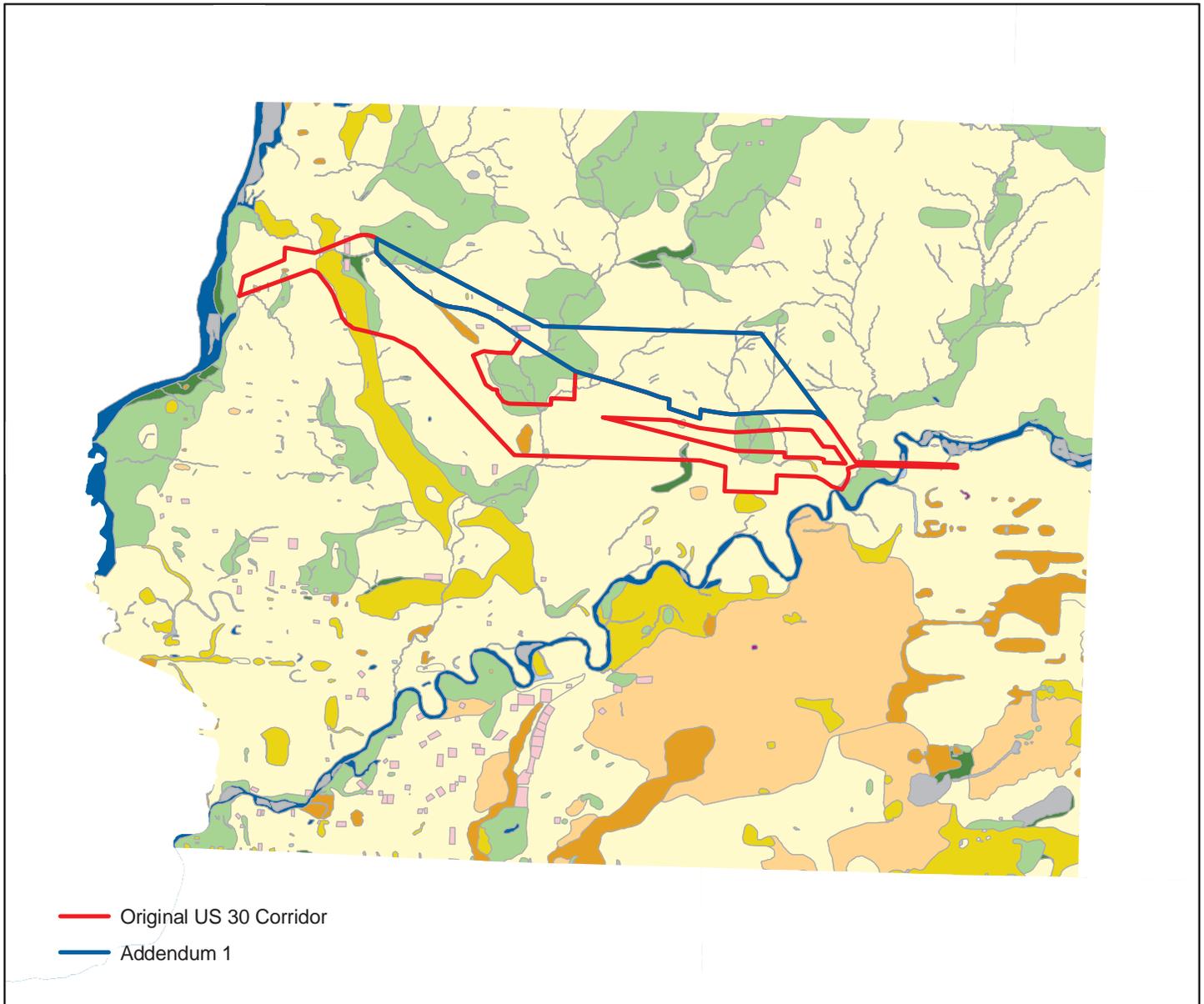


- Addendum 1
- Original US 30 Corridor
- Upland
- Sand deposits
- Floodplains

Figure 1-2 Major Landforms in the US 30 corridor.



Land Cover of Whiteside County, Illinois in the Early 1800's



Legend

- barrens
- bottomland
- cultural
- forest
- marsh
- other wetland
- prairie
- slough
- swamp
- topo/geo
- water
- wet prairie

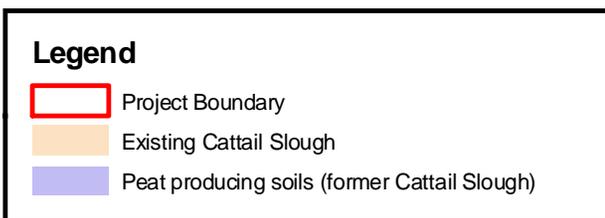
MAP	ACRES	HECTARES	PERCENT
barrens	0	0	0
bottomland	2418	978	0.5
cultural	2721	1101	0.6
forest	56101	22703	12.6
marsh	11853	4797	2.7
other wetland	34	14	0
prairie	288068	116577	64.5
slough	436	176	0.1
swamp	23903	9673	5.4
topo/geo	3691	1494	0.8
water	11912	4821	2.7
wet prairie	45613	18459	10.2
TOTAL	446750	180794	100



Figure 1-3. US Route 30 Project Area 1800's landcover
 (Szafoni, D. L., D. Greer and L. Cordle. 2002. Land Cover of Illinois in the Early 1800's. Illinois Natural History Survey. Digital vector data.)



Figure 1-4 Existing and former Cattail Slough including peat producing soils



Chapter 2: Vegetation: Botanical Surveys

William Handel, John Taft, Jacquelyn Potter

Vegetation: Cover Types and Plant Communities

Twenty-two cover types were found in the corridor (in alphabetical order): Cropland, Conservation Reserve Program (CRP grassland), CRP Tree Planting, Forbland, Forest, Forested Wetland, Lacustrine (Lake), Marsh, Mining, Non-native Grassland, Pasture and Hayland, Pond, Prairie, Riverine (River), Savanna, Sedge Meadow, Shrubland, Scrub-shrub wetland, Savanna, Stream, Tree Farm, Upland Forest, Urban and Built-up land, and Wet Meadow. Only the major cover types will be discussed in detail, with emphasis on natural forest and prairie. Cropland was the dominant upland cover type (82.2%), followed by Urban and Built-up land (9.3%), Pasture and Hayland (2.6%), Forest (2.5%), and Non-native Grassland (0.47%).

The cover type map for the US Route 30 project corridor was digitized as a GIS layer. Total land cover and percent cover for each cover type in the US Route 30 project corridor including Addendum 1 is presented in (Table 2-1).

Table 2-1. Land area of cover types present in the US Route 30 project corridors (Whiteside County, Illinois).

Cover Type	Acres	%Cover
Cropland	28,839.55	82.25%
Urban and Built-up Land	3,247.27	9.26%
Pasture and Hayland	907.82	2.59%
Forest	888.28	2.53%
Non-Native Grassland	163.15	0.47%
Tree Farm	133.34	0.38%
CRP Tree Planting	130.64	0.37%
Wet Meadow	124.59	0.36%
Shrubland	112.25	0.32%
Marsh	111.08	0.32%
Savanna	84.69	0.24%
CRP Grassland	76.01	0.22%
Grassland (Prairie)	66.81	0.19%
Riverine (River)	62.76	0.18%
Forested Wetland	39.35	0.11%
Lacustrine (Lake)	26.30	0.08%
Stream	19.32	0.06%
Sedge Meadow	12.36	0.04%
Forbland	6.60	0.02%
Mining	6.42	0.02%
Shrub-scrub Wetland	2.13	0.01%
Pond	0.57	0.00%
Total	35,061.29	100.00%

The major plant communities in the US Route 30 project are discussed below. The communities with the greatest native plant diversity (i.e., forest, savanna, and prairie communities) will be discussed in greatest detail.

Vegetation: Plant Community (Forest)

The US Route 30 Forest cover type was subdivided into Forest and Forested Wetland (**Forested Wetlands described in Chapter 5**). Forest communities found in the US Route 30 forest cover type were predominately dry-mesic upland forest and dry-mesic sand forest with some localized forested wetland community types. These totaled 888.3 acres, 2.53% of the project corridor, ranking fourth among cover types (**Table 2-1**). This amount is slightly lower than the 4.3% of present forest cover for the county (Whiteside County, Illinois Land Cover, July 1996).

The sand forests are confined to the bluff east of Cattail Creek, and to a far lesser extent, the sand dunes adjacent to the Chicago Northwestern Railroad near Fulton. Based on stand composition and structure, these forests appear to formerly have been black oak sand savanna. Two sandy hill prairies still exist on the bluff. Small areas of sand prairie vegetation can still be found in some of the forest clearings. These forests currently are dominated by native and non-native shade-tolerant species. Detailed qualitative and quantitative descriptions of the forests are presented in **Appendix 2-2 and Appendix 2-3, respectively**. The majority of the dry-mesic upland forests occurred further east of the bluff at Cattail Creek. Due to past history of disturbance including grazing by domestic livestock, and fire absence, no high-quality examples of upland forests were found within the US Route 30 project corridor during the 2007-2008 surveys. Furthermore, no endangered or threatened species were found within this cover type.

Thirty-one tree species were encountered in the 13 forest units that were sampled with quantitative methods. Dominant species, those with 5% or greater of the importance value, were black oak (*Quercus velutina*), hackberry (*Celtis occidentalis*), black walnut (*Juglans nigra*), wild black cherry (*Prunus serotina*), sugar maple (*Acer saccharum*), bitternut hickory (*Carya cordiformis*), and the non-native white mulberry (*Morus alba*). In general, oaks are dominant with a sum total of approximately 21% of the IV, followed by hickories with 16% of the IV, and elms with 15% of the IV (**Appendix 2-3**).

Dry-Mesic Upland Forest - The dry-mesic upland forests can be classified as oak-hickory forests because of the dominance of these species. Most examples of this forest type were logged in the past. Dominant canopy trees within this forest type were wild black cherry, basswood (*Tilia americana*) black walnut, American elm (*Ulmus americana*), bitternut hickory, hackberry and in a few areas sugar maple. Some were grazed in the past by domestic livestock and are currently browsed by an abundant deer population. Sugar maple is among the dominant species in several of the dry-mesic forests near Morrison. The majority of the dry-mesic forest communities occurred in the Addendum 1 portion of US 30 (**Figure 2-2**).

Common subcanopy trees included bitternut hickory, hackberry, sugar maple and black cherry. Typical shrubs included gray dogwood (*Cornus racemosa*), hazelnut (*Corylus americana*), Missouri gooseberry (*Ribes missouriense*), and the non-native shrub honeysuckles (*Lonicera* spp.). Common woody vines included Virginia creeper (*Parthenocissus quinquefolia*), bristly greenbrier (*Smilax hispida*), poison ivy (*Toxicodendron radicans*), and river grape (*Vitis riparia*). Herbaceous ground-cover species included; doll's-eyes (*Actaea pachypoda*), ramps (*Allium burdickii*), Jack-in-the-pulpit (*Arisaema triphyllum*), ladyfern (*Athyrium angustum*), American bellflower (*Campanula americana*), sedges (e.g. *Carex blanda* and *Carex pensylvanica*), toothwort (*Dentaria laciniata*), white snakeroot (*Eupatorium rugosum*), joe-pye weed (*Eupatorium purpureum*), white avens (*Geum canadense*), stickseed (*Hackelia virginiana*), Virginia waterleaf (*Hydrophyllum virginianum*), Canada wood nettle (*Laportea canadensis*), Virginia bluebells (*Mertensia virginica*), lopseed (*Phryma leptostachya*), Virginia knotweed (*Polygonum virginianum*), Common snakeroot (*Sanicula gregaria*), false Solomon seal (*Smilacina*

racemosa), common blue violet (*Viola pratincola*), and smooth yellow violet (*Viola pubescens* v. *eriocarpa*).

Dry-mesic Upland Sand Forest - This community is restricted in the study corridor to the bluff east of Cattail Creek and small areas adjacent to the large sand dune along the southern edge of US Route 30 near Fulton. The native vegetation that occurred on Sparta soils is described as prairie grasses with widely spaced oak and hickory trees (Soil Survey Staff 2004). Large black oaks are found in this forest type. The forests appear to have been grazed in the distant past and nearby areas are still fenced and pastured. Several introduced woody species are common, with white mulberry found extensively throughout the bluff. Black walnut was an important component in some areas of this forest type, but in other areas, it appeared that this species was planted. The shrub layer is dominated in some areas by native and non-native thorn-bearing species. There are a few small openings with sand prairie and savanna vegetation. The herbaceous layer has some native flora but the exotic garlic mustard (*Alliaria petiolata*) dominated the forest floor in many areas.

Dominant canopy trees within this forest type were bitternut hickory, black cherry, and black oak. The subcanopy included bitternut hickory, hackberry, white mulberry, and black cherry. Typical shrubs included gray dogwood, hazelnut, Missouri gooseberry, blackberry (*Rubus allegheniensis*), black raspberry (*Rubus occidentalis*), and the non-native multiflora rose. Common woody vines included Virginia creeper, bristly greenbrier, poison ivy, and riverbank grape. Herbaceous ground-cover species included garlic mustard, ramps, Jack-in-the-pulpit, lady fern, American bellflower, sedges (e.g. *Carex blanda* and *Carex pensylvanica*), beggar's lice (*Desmodium glutinosum*), white snakeroot, white avens, stickseed, lopseed, Virginia knotweed, and starry false solomon seal (*Smilacina stellata*).

Individual Stand Descriptions

Forest Stand 1

This 40-acre stand is located in the eastern portion of the project corridor (**Figure 2-1**) and is a dry-mesic upland forest. Sixteen sample plots were completed at this site. It is isolated and surrounded by agricultural land. The stand occurs on Fayette silt loam, 5 to 10 percent slopes, eroded; Downs silt loam, 2 to 5 percent slopes; and Seaton-Timula silt loams, 13 to 25 percent slopes, eroded. The stand is a former savanna grove with a very open canopy. Fourteen species of trees were sampled within the stand that contained 148 trees per acre and a basal area of 130 ft² per acre. The stand was dominated by hackberry, American basswood, bitternut hickory, and slippery elm. Hackberry was distributed throughout the stand and contained over half (54%) the individuals and approximately one-third of the basal area within the stand (**Appendix 2-3**). Only one introduced tree species, black locust, occurred within this stand. The sapling and shrub layers were sparse. The stand was estimated to be old-second growth age. The ground cover was moderately degraded and evidence of heavy deer browsing was present. However, of the six stands sampled quantitatively, it had the most diversity in the herbaceous layer.

Forest Stand 2

This 10-acre forest is located in the project corridor along the bluff line east of Cattail Creek (**Figure 2-1**) and is probably a former black oak sand savanna. This forest was classified as a dry-mesic sand forest. Portions of an established tree farm occurred in this forest and sampling in this area was limited because the mix of planted species was unrepresentative of the forest vegetation in the project area. Four sample plots were completed at this site. The stand occurs on Plainfield Sand, 3 to 25 percent slope and Sparta loamy sand, 12 to 20 percent slope. This stand was very disturbed with several introduced tree species are common in the overstory.

Eleven species of trees were sampled within this stand that contained 155 trees per acre and had a basal area of 128 ft² per acre (Appendix 2-3). White mulberry, hackberry, American elm, and honey locust dominated the stand. White mulberry contained 32% of the individuals and approximately one-third of the basal area. The stand age was estimated to be mature second growth. The ground layer was highly degraded and dominated by the non-native garlic mustard.

Forest Stand 3

This 20-acre forest is located at the northern edge of the project corridor along the bluff east of Cattail Creek (**Figure 2-1**) and is probably a former black oak sand savanna. This forest was classified as a dry-mesic sand forest. The stand occurs primarily on Plainfield Sand with 12 to 25 percent slope. A small portion occurs on Lamont loam, 7 to 15 percent slope, eroded. This forest stand was highly to moderately degraded and currently was being grazed by horses. Eight sample plots were completed at this site. Thirteen species of trees were sampled within this stand that contained 158 trees per acre and had a basal area of 112 ft² per acre (Appendix 2-3). Black oak was the dominant species in the stand and made up 55% of the basal area. White mulberry, black cherry, and bitternut hickory were also important species in the stand. This stand age was estimated to be sub-mature to mature second-growth.

Forest Stand 4

This 10-acre stand is located next to the sand savanna adjacent to US 30 on the southwestern edge of the corridor (**Figure 2-1**). This stand was classified as a dry-mesic upland sand forest. The stand occurs on Dickinson sand loam, 2 to 7 percent slope eroded. This forest was moderately degraded and evidence of recent logging of large trees was present. Four sample plots were completed at this site. Ten species of trees were sampled within this stand that contained 151 trees per acre and had a basal area of 120 ft² per acre (Appendix 2-3). Black walnut was the dominant tree and contained 32% of the individuals and made up one-third of the basal area. Other important trees in the stand were black oak, bitternut hickory, and bur oak. The stand was estimated to be mature second-growth forest.

Forest Stand 5

This 50-acre stand is located along the bluff line east of Cattail Creek (**Figure 2-1**). This forest was classified as a dry-mesic sand forest. It was probably an open black oak sand savanna in the past. Several small openings still have sand prairie vegetation present in the herb layer. The stand occurs on Plainfield Sand, 3 to 25 percent slope, and Sparta loamy sand, 12 to 20 percent slope. A small portion occurs on Lamont loam, 7 to 15 percent slope, eroded. Sixteen sample plots were completed at this site. Fourteen species of trees were sampled within this stand that contained 174 trees per acre and had a basal area of 122 ft² per acre (Appendix 2-3). Large black oaks were common at this site, but black cherry and hackberry made up a greater portion of total individuals in the stand. These two species made up 40% of the total individuals. The stand was estimated to be mature, second-growth age forest. The ground layer was highly degraded and was dominated by the non-native garlic mustard.

Forest Stand 6

This 20-acre stand was located at the southern end of the bluff line east of Cattail Creek (**Figure 2-1**). This forest was classified as a dry-mesic sand forest. The stand occurs on Plainfield Sand with 12 to 25 percent slope, and Lamont Sand with 15 to 45 percent slope. Eight sample plots were completed at this site. Fifteen species of trees were sampled within this stand that contained 192 trees per acre and had a basal area of 118 ft² per acre (Appendix 2-3). Black oak was the dominant tree and comprised 33% of the individuals and approximately 40% of the basal area. Other important trees include black walnut, bitternut hickory, and hackberry. The

stand was estimated to be a sub-mature to mature second-growth forest. The stand was highly degraded and had recreational vehicle trails throughout most of the sampling area.

Forest Stand 7

This 13-acre dry-mesic forest was located at the northern edge of the Addendum 1 corridor along Rock Creek at the edge of a subdivision near the Morrison city limits (**Figure 2-2**). This stand occurs on Seaton-Timula silt loam (18 to 35 percent slope), Seaton silt loam (2 to 5 percent slope), and to a lesser extent Orion silt loam (0 to 2 percent slope). Five sample plots were completed at this site. Twelve species of trees were sampled within the stand that contained 146 trees per acre and a basal area of 98 ft² per acre (Appendix 2-3). Hop hornbeam (*Ostrya virginiana*) and sugar maple were the dominant trees on the site, comprising 55% of the total individuals and approximately 24% of the basal area. Bitternut and shagbark hickories were also abundant. The stand was considered a sub-mature to mature second-growth forest. There was moderate disturbance including past logging and tree cutting for firewood by near by residents. This forest had a relatively diverse spring flora.

Forest Stand 8

This 12 acre dry-mesic forest occurs at the edge of a subdivision within the Morrison city limits (**Figure 2-2**). This stand occurs on Seaton-Timula silt loams, 18 to 35 percent slope, Tell silt loam (5 to 10 percent slope), Lamont fine sand loam (18 to 35 percent slope), and Bertrand silt loam (2 to 5 percent slope). Five plots were sampled in this stand. Sixteen species of trees were sampled within this stand, several species were exotics. This stand contained 123 trees per acre and had a basal area of 63 ft² per acre (Appendix 2-3). Bitternut hickory and wild black cherry were the dominant trees comprising 63% of the total individuals and 51% of the basal area. This forest was being managed for TSI (Timber Stand Improvement). Many undesirable trees were girdled throughout the area, others were marked for later harvest. Several areas were kept open by mowing. The forest is young to sub-mature growth forest.

Forest Stand 9

This 26 acre dry-mesic forest occurs near the edge of Morrison city limits east of Norrish Road (**Figure 2-2**). This stand occurs on predominantly Seaton-Timula silt loams (18 to 35 percent slope). A small portion occurs on Seaton silt loam (2 to 10 percent slope). Eleven plots were sampled in this stand. Thirteen species of trees were recorded in sample plots. It contained 94 trees per acre and a basal area of 120 ft² per acre (Appendix 2-3). The dominant trees in this forest were sugar maple, basswood, and red oak (*Quercus rubra*). Together they comprise 55% of the total individuals and 66% of the basal area. Other important trees included hop hornbeam, wild black cherry, and white oak. This forest had several very large individual trees, especially red and white oaks. This forest had a diverse spring flora, but was heavily shaded by sugar maple during the summer. Several large areas were cleared of trees for wildlife food plots. These openings were planted with several exotic herbaceous species in the mustard family (Brassicaceae). This stand was considered a mature second-growth forest.

Forest Stand 10

This 14 acre dry-mesic forest is located just west of Morrison near Bishop Road (**Figure 2-2**). This stand occurs on predominantly Seaton-Timula silt loams (2 to 35 percent slope) and Seaton Timula silt loam (18 to 35 percent slope). Six plots were sampled in this stand. Ten species of trees were recorded in plot samples in this stand that contained 120 trees per acre and 106 ft² per acre (Appendix 2-3). Basswood, wild black cherry, and hackberry were the most common species; together they comprised 46% of individuals. This forest had several large individual trees, mostly white ash and red oak scattered throughout. This forest had a moderate history of disturbance and was pastured in the past (some fencing still evident).

Forest Stand 11

This 22 acre dry-mesic forest occurs just north of Morrison (**Figure 2-2**). The stand occurs on predominantly Seaton-Timula silt loam (0 to 35 percent slope), Orion Silt loam (0 to 2 percent slope), Seaton Timula silt loam (18 to 35 percent slope), and to a small extent Seaton and Raddle silt loams, ranging from 2 to 10 percent slope. Nine plots were sampled in this stand. A total of 15 species were recorded. It contained 124 trees per acre and a basal area of 106 ft² per acre. Black walnut, sugar maple, hackberry, box elder, and American elm were the most common species (Appendix 2-3). Black walnut comprised approximately 20% of the individuals. Large white oaks were scattered throughout the stand and made up 32% of total basal area. The forest was considered young to old second-growth age. There was wide habitat variation within this stand: large red and white oaks occurred along the upland slopes and black walnut and boxelder were the dominant species along the stream terrace. There were also some areas of young successional forest with dense stands of mixed native and exotic species. This stand was managed for TSI (Timber Stand Improvement). Many undesirable trees were girdled throughout the area; others were marked for later harvest. Several maintained paths dissect the forest.

Forest Stand 12

This 41 acre dry-mesic forest occurs at the western edge of the Addendum 1 corridor (**Figure 2-2**). The stand occurs on Lamont fine sandy loam (2 to 35 percent slope), Seaton silt loam (2 to 18 percent slope), Plainfield sand (12 to 20 percent slope), Seaton-Timula silt loam (18 - 35 percent slope), and to a far lesser extent Bertrand and Orion silt loams (0 to 5 percent slope). Fifteen plots were sampled in this tract. Seventeen species of trees were sampled within this stand that contained 102 trees per acre and had a basal area of 91 ft² per acre (Appendix 2-3) (Appendix 2-3). American elm, black walnut, wild black cherry comprised 43% of the individuals. Large individuals of black walnut, bur oak, and black oak occurred throughout the stand and collectively were 52% of the basal area. It had several individuals of butternut (*Juglans cinerea*) in one location, although they did not occur within the sample plots. This forest had a diverse spring flora. Equestrian trails occurred throughout the forest. It was considered a mature second growth forest.

Forest Stand 13

This 11 acre dry-mesic forest occurs adjacent to Spring Creek at the western edge of the Addendum 1 corridor (**Figure 2-2**). The majority of the stand occurs on Bertrand silt loam (5 to 10 slope) and Orion silt loam (0 to 2 percent). A very small portion of the stand occurs on Seaton silt loam (5 to 10 percent slope). A portion of this site was mapped as a National Wetland Inventory (NWI) site and was not sampled. Five plots were sampled, fourteen species of trees were found in the stand. It contained 75 trees per acre and had a basal area of 104 ft² per acre (Appendix 2-3). The most common native trees were basswood, black walnut, shagbark hickory, and hackberry; these three species comprised 54% of the individuals in the stand and 46% of the basal area. Very large individuals of northern catalpa (*Catalpa speciosa*) and white pine (*Pinus strobes*) occurred in two locations in the forest. These appear to be planted adjacent to old home sites.

Vegetation: Plant Community (Savanna)

Dry to Dry-mesic Sand Savanna - The Savanna cover type made up 84.7 acres (0.39%) of the total US Route 30 project corridor (**Table 2-1; Figure 7-1**). A total of 147 plant species were recorded in the Savanna cover type, of which 127 (about 86%) were native (**Appendix 2-4**). This was a botanically diverse cover type that had several populations of endangered and threatened plant species (**Chapters 6 and 7**). This cover type typically has been used to describe bi-layered vegetation consisting of a ground cover of native shrubs, forbs, grasses, and sedges with an open canopy (10-80% closure) of fire-tolerant tree species. This cover type typically occurred as a mixture of *dry to dry-mesic sand savanna* and *dry sand prairie* communities but was cover-typed collectively as Savanna because boundaries between these communities are not easily distinguishable in the landscape limiting the potential for cover typing at a finer scale. This cover type occurs on a series of sand dunes reaching their greatest height adjacent to the Chicago Northwestern Railroad. The dry sand savanna and prairie communities occur on the ridge tops. On some of the sand ridges, there are stands of dense, small (10 -20 cm dbh) black oak and some of these ridges were planted in pines (*Pinus* spp.). Sand blowouts exist throughout this cover type and many of the rare plant species are associated with these blow outs. On the more level terrain between the dunes and swales, dry-mesic savanna and dry-mesic sand prairie communities occur and the vegetation is less sparse than the open prairie. There has been some human disturbance in the past with some old livestock fences, but presently there is no livestock grazing. There is evidence of past fire and fire scars occur on some of the trees near the railroad. The dominant tree in this community is black oak. Typical shrubs include gray dogwood, wafer ash (*Ptelea trifoliata*), and aromatic sumac (*Rhus aromatica*). Typical herbaceous ground-cover species include western ragweed (*Ambrosia psilostachya*), three awn grass (*Aristida tuberculosa*), poppy mallow (*Callirhoe triangulata*), sedges (e.g., *Carex mulhenbergii*, *Carex tonsa*), Schweinitz's flatsedge (*Cyperus schweinitzii*), frostweed (*Helianthemum canadense*), golden aster (*Heterotheca camporum*), June grass (*Koeleria macrantha*), bush clover (*Lespedeza capitata*), hairy puccoon (*Lithospermum caroliniense*), horsemint (*Monarda punctata*), common sorrel (*Rumex acetosella*), Indian grass (*Sorghastrum nutans*), and bird's foot violet (*Viola pedata*). State endangered and threatened species found in this plant community include Gray's sedge (*Cyperus grayioides*), beach heather (*Hudsonia tomentosa*), and large-flowered beard tongue (*Penstemon grandiflorus*).

Vegetation: Plant Community (Prairie)

Total land cover for Grassland (Prairie) was 66.81 acres, 0.19% of the total area, less than the forest cover type within the US Route 30 project corridor (**Table 2-1**). The bulk of additional prairie acreage (1.45 acres) in the addendum was found along Hillside Road between US 30 and Fulfs Road. Previously, this prairie site was cut off by the original corridor and the balance of the site was included with the addendum. The prairie vegetation in the US Route 30 corridor can be classified into four types based on vegetation, bedrock or substrate, soil type, and landscape position. These include sand, dry sand hill prairie, dry-mesic gravel hill prairie (limestone), and black soil prairie communities (**Figure 7-1**). Sand prairie occurred in the large sand dune complex associated with the savanna cover type occurring south of existing US Route 30 near the Chicago Northwestern Railroad (**Figure 7-1**). In this area, this community occurred in association with the savanna cover type (dry to dry-mesic sand savanna). The other sand hill prairie communities occurred along the bluff east of Cattail Creek. These prairies occurred as openings within the dry-mesic sand forest communities. A dry-mesic gravel (limestone substrate) prairie occurred along the slope just west of Cattail Creek, east of Frog Song Road, on the edge of the project area. Black soil prairies were rare in the corridor and

occurred along an existing railroad and an abandoned rail line on the eastern end of the corridor (**Figure 7-1**). Several state endangered and threatened species occurred within the sand, dry sand hill, and dry-mesic gravel (limestone) prairie communities (**see Chapters 6 and 7**). Some of the remnant prairies were degraded by fire absence, invasion of exotic species, and past grazing. Despite the disturbance, these are floristically diverse communities with rare species for the US Route 30 project corridor and the state.

Dry Sand Hill Prairie - This community type is limited to the bluff east of Cattail Creek (**Figure 7-1**). This community is very rare in US Route 30 corridor and in this area of Illinois (Randy Nyboer, INHS, pers. comm.). With a few exceptions, species composition is very similar to the sand prairie communities in the Savanna cover type. Woody vegetation is encroaching along the edges, but the grasslands are still open and dominated by sand prairie grasses and forbs. The dry sand hill prairie east of Cattail creek and southwest of existing US Route 30 (**Figure 7-1**) is the most diverse and has several populations of endangered and threatened species (**Chapters 6 and 7**). The other dry sand prairie is further south along the bluff and has fewer species. One population of a state threatened species occurs at this site. Common species that occur in this community type include western ragweed, (cheat grass brome) *Bromus tectorum*, Schweinitz's flatsedge, bush clover, horsebalm, common sorrel, (little bluestem) *Schizachyrium scoparium*. State endangered and threatened species found in this plant community include kitten tails (*Besseyia bullii*), prairie dandelion (*Microseris cuspidata*) and broomrape (*Orobanche ludoviciana*).

Dry-mesic Gravel Hill Prairie (limestone substrate) - This community is very rare in US Route 30 corridor and in this area of Illinois (Randy Nyboer, INHS, pers. comm.). Limestone bedrock occurs near the surface at this location (Figure 7-1). The prairie vegetation primarily is found in a flat area above the slope. Small limestone cliffs (30 feet) occur along the edge before the relief drops into the Cattail Creek floodplain. The floristic composition includes species from the nearby sand prairies and a few restricted to the gravelly substrate of weathered limestone in this habitat including small yellow flax (*Linum medium*), rock sandwort (*Minuartia stricta*), and ladies' tresses (*Spiranthes magnicamporum*). Additional herbaceous species include rock cress (*Arabis lyrata*), sideoats grama (*Bouteloua curtipendula*), spiked lobelia (*Lobelia spicata*), little bluestem, and the non-native blue grasses (*Poa compressa* and *P. pratensis*). State endangered and threatened species found in this plant community include kitten tails. Fire suppression has caused some of the area to become infested with native and non-native woody species including eastern red cedar (*Juniperus virginiana*), bush honeysuckle, and aromatic sumac.

Black-Soil Prairie (Dry-mesic to mesic prairie) - Three main areas of black-soil prairie occur within the US Route 30 corridor including two along an abandoned rail line (**Figure 7-1**). These two areas are adjacent to IL Route 88, and are owned by the Natural Land Institute and managed by the Whiteside Soil Conservation Service (**see Chapter 7**). The Lyndon-Agnew Prairie Nature Preserve occurs partially within the US Route 30 study corridor along this same rail line. In general, with the exception of these sites, cool-season grasses with a few disturbance-tolerant prairie species dominate the majority of the railroad alignments. The other black soil prairie community is near Union Grove. This site is identified in the Roadside Prairie Inventory as Site 17 in IDOT District 2 (Handel 2004) (**Figure 2-2**). The following species occur in the black-soil prairie community: big bluestem (*Andropogon gerardii*), heath aster (*Aster ericoides*), Canada wild rye (*Elymus canadensis*), sawtooth sunflower (*Helianthus grosseserratus*), bee balm (*Monarda fistulosa*), reed canary (*Phalaris arundinacea*), Virginia mountain mint (*Pycnanthemum virginianum*), Canada goldenrod (*Solidago canadensis*), prairie cord grass (*Spartina pectinata*), and the non-native smooth brome (*Bromus inermis*).

The following cover types are only minor components of the US Route 30 corridor and are not discussed in detail. Species encountered in these cover types are listed in **Appendix 2-1**.

Vegetation: Plant Community (Cropland)

The two main crops grown in the US 30 project corridor are corn and soybeans (**Appendix 2-4**). Other crops that are grown to a lesser extent include wheat, oats, and other small grains. Cropland makes up 28,839.5 acres, or 82.25%, of the corridor (**Table 2-1**). This is slightly more than the ranking of cropland in Whiteside county overall with 67.8% of the land cover (Whiteside County, Illinois Land Cover, July 1996).

Vegetation: Plant Community (Urban and Build-up land)

Most of the urban and build-up land occurs around the town of Morrison and near the eastern end of the corridor near Rock Falls. A total of 3,247.3 acres of the study corridor, or 9.3%, is urban or build-up land (**Table 2-1**), a greater proportion than the 2.1% currently in the county (Whiteside County, Illinois Land Cover, July 1996).

Vegetation: Plant Community (Pasture and Hayland)

The Pasture and Hayland vegetation cover type is widely scattered throughout the US Route 30 project corridor (**Appendix 2-4**), making up 907.82 acres, or 2.6%, of the study corridor (**Table 2-1**). Several pastures have not had livestock grazing for an extended period, but still have fences. These fields were combined with the pastureland cover type. This cover type represents the pastureland and/or successional field community of White and Madany (1978) and is associated with severe disturbance to the natural character of an area.

Vegetation: Plant Community (Tree Farm)

This is a mature tree planting near US Route 30 on the bluff east of Cattail Creek (**Appendix 2-4**). It is a mixture of planted native and introduced species and young dry-mesic sand forest. It occupies 133.34 acres, or 0.38%, of the total land area.

Vegetation: Plant Community (Shrubland)

Shrubland occupies 112.2 acres, or 0.32%, of the total land area and occurs scattered throughout the US Route 30 project corridor (**Table 2-1**). This cover type includes abandoned pastures, successional fields, hedgerows, and some railroad or roadway rights-of-way. The cover type is dominated by dense-to-open stands of shrubs and young trees, with at least 25% shrub cover.

Vegetation: Plant Community (Non-native Grassland)

Non-native grassland vegetation cover type within the US Route 30 project corridor occupied 163.1 acres, or 0.47%, of the study corridor (**Table 2-1**). Sites were characterized as non-native grasslands if they were dominated by planted or established non-native, cool season grasses; the cover type usually also includes a few additional invasive native and non-native species that are not dominant.

Vegetation: Plant Community (Forested Wetland)

Forested wetlands occupy 39.35 acres, or 0.11%, of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

Vegetation: Plant Community (Pond)

Ponds occupy 0.57 acres of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

Vegetation: Plant Community (Sedge Meadow)

Sedge meadows cover 12.4 acres or 0.04%, of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

Vegetation: Plant Community (Scrub-Shrub Wetland)

Scrub-shrub wetlands cover 2.1 acres, or 0.01%, of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

Vegetation: Plant Community (Wet Meadow)

Wet meadows cover 124.59 acres, or 0.36%, of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

Vegetation: Plant Community (Marsh)

Marshes cover 111.1 acres, or 0.32%, of the US Route 30 corridor. This cover type is discussed in detail in Chapter 5.

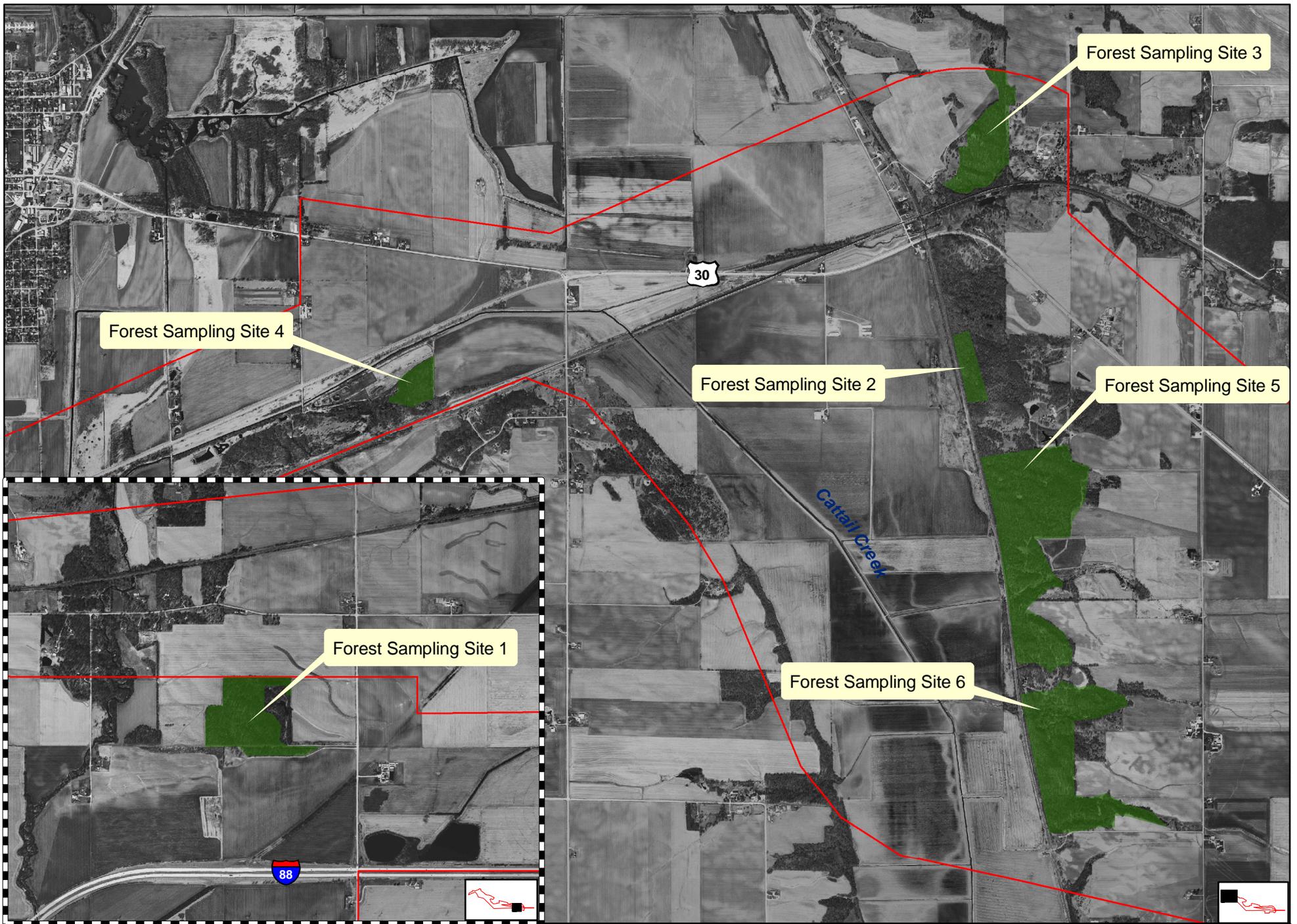


Figure 2-1. Sampled forests in the US Route 30 corridor

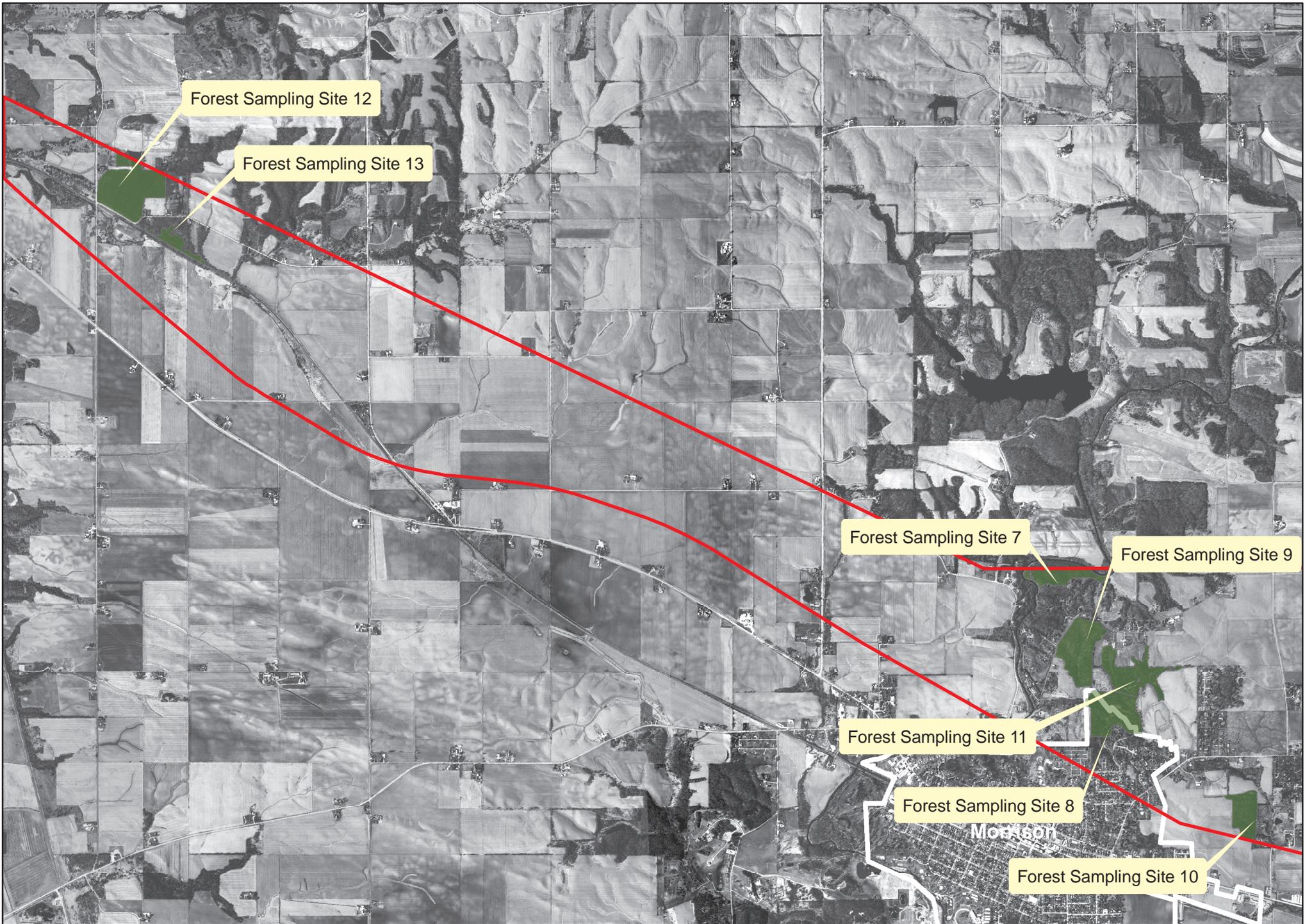
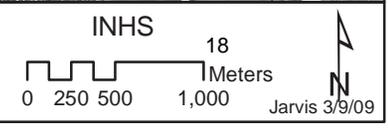


Figure 2-2 Sampled forests in the Addendum 1 US Route 30 corridor



CHAPTER 3 TERRESTRIAL WILDLIFE

The terrestrial wildlife investigated during this study were birds, mammals, amphibians, and reptiles. Preliminary information about wildlife in the addendum to the US 30 project corridor and the surrounding region was obtained from scientific collections, the scientific literature, and unpublished reports. Fieldwork was conducted to document species that occurred in the corridor. Field methods are described in Zylka et al. (2008) unless otherwise noted.

WILDLIFE HABITAT

The wildlife habitat in the addendum to the US 30 project corridor is the same as described in Chapter 3 of the report on the original US 30 project corridor (Zylka et al. 2008).

BIRDS

Dave Enstrom

Standard sources were searched to establish which bird species were likely to be found in and around the US 30 project area (Whiteside County). The results of this search are reported in Zylka et al. (2008).

Results

Point counts and a driving census were conducted during spring migration, the breeding season, and fall migration. The methodologies used in conducting these censuses are described in Zylka et al. (2008), and the locations and habitat descriptions of point count census areas and the driving census route are described and depicted in **Appendix 3-8**, Table 1 and in **Appendix 3-4**, Figures 1-5.

Eighty-nine bird species were recorded during censuses of the US 30 project area addendum (**Appendix 3-1**). Two Illinois Endangered Species were recorded during the avian studies and are discussed in Chapter 6. Eleven *Partners in Flight* species of concern, and nine birds designated as Illinois conservation priority species in the *Illinois Wildlife Action Plan* were recorded (**Appendix 3-1**) in the project area. The most commonly observed species recorded within the project corridor during all census periods (spring, breeding, fall) were the common grackle, red-winged blackbird, European starling, Canada goose, American robin, eastern meadowlark, and the mourning dove.

SPRING MIGRATION

Spring censuses were conducted on 2 & 3 May 2008. During the spring census period 77 species of 34 families were recorded in the study area (**Appendix 3-5**, Tables 1 and 2). Sixty-four species were detected during timed point counts (**Appendix 3-5**, Table 1). Forty-seven species were encountered during the driving census (**Appendix 3-5** Table 2).

A total of 866 individuals were observed during the spring migration in the project corridor (**Appendix 3-5**, Tables 1 and 2). Thirty-five species (123 individuals) were counted in shrubland, 44 species (184 individuals) in forest, and 27 species (99 individuals) in grassland. No large flocks of birds were encountered. Two hundred and thirty-four of the 471 individuals counted during the driving census were in farm fields. Many more species were found during the driving survey in farmland (20 species) and urban (20 species) than in other habitats.

BREEDING SEASON

Breeding season censuses were conducted on 10 & 11 June 2008. Sixty-two species of thirty-three families were encountered during this period (**Appendix 3-6** Tables 1 and 2). All of the species encountered are likely to breed in the project area. Forty-seven species were detected during timed point counts (**Appendix 3-6**, Table 1) and forty-one species were encountered during the driving census (**Appendix 3-6**, Table 2).

A total of 750 individuals were observed during the breeding bird point census. The highest diversity (22 species) and the greatest number of individuals (69) were recorded at point census site 4 (shrubland). Twenty-four species (110 individuals) were counted in shrubland. Twenty species (154 individuals) were counted in the five forest census sites. Fourteen species (59 individuals) were seen at the two grassland census sites. Two hundred and thirty-four of the 471 individuals counted during the driving census were observed in farm fields. Over half of the species counted during the driving census were encountered in urban habitat, Morrison, IL. Only one species was found in grassland habitat, four in forest (edge) habitat and four in stream habitat.

FALL MIGRATION

Censuses were conducted on 3 & 30 September 2008. Fifty-one species of twenty-nine families were encountered during the fall census period (**Appendix 3-7**, Tables 1 and 2). Thirty-nine species were detected during timed point counts (**Appendix 3-7**, Table 1) and thirty-eight species were encountered during the driving census (**Appendix 3-7**, Table 2). A total of 899 individuals were observed during the fall migration in the project corridor (**Appendix 3-7**, Table 1). Three hundred and eighty-nine species were recorded during the timed point counts. The highest diversity (16 species) was recorded at point census area 4. The greatest number of individuals (96) was recorded at point census site 1. Both of these sites are in shrubland habitat. Twenty-one species and 150 individuals were recorded in shrubland habitat. Twenty-six species and 160 individuals were counted in the five forest census sites during the fall. Sixteen species and 79 individuals were counted at the two grassland census sites. Thirty-eight species and 510 individuals were counted during the driving census. Twenty-nine species, 76% of all encountered, and 379 individuals, 74% of all encountered, were found in either farm fields or urban habitat. Many fewer birds were found in shrubland, grassland, and stream or forest habitat during the fall than in farm fields or urban habitat.

There are a number of groups of birds that have important functions within the terrestrial and aquatic ecosystems. Some of these groups are subject to national plans. These groups include the following.

Waterfowl

Three species of waterfowl (Family Anatidae) were observed in the project corridor (**Appendix 3-1**). Most individuals seen were Canada geese, but even this species was not abundant in the US 30 project area addendum.

Shorebirds

Shorebirds include the plovers, yellowlegs, sandpipers, and snipes. These species forage in areas containing shallow water and sparse vegetation, such as wetlands, river floodplains, sand and gravel bars, and flooded agricultural fields. Only one species, the

killdeer, was identified in project corridor (**Appendix 3-1**). This species is ubiquitous throughout Illinois in all seasons but winter.

Wading Birds

Bitterns, herons, egrets, and cranes are often referred to as wading birds. One species of wading bird was observed in the project corridor (**Appendix 3-1**). Great blue herons were seen in all three seasons in the project area, but only seven individuals were found: three in spring, two in the breeding season, and two in the fall.

Raptors

Raptors include birds of prey such as eagles, hawks, falcons, owls, and vultures. Eight species of raptors were observed in the project corridor (**Appendix 3-1**). The most common raptors in the project corridor were turkey vultures, red-tailed hawks, American kestrels, and cooper's hawks. During the spring driving census, an osprey was seen flying over farm fields east of point census area 4 and a Merlin was seen just west of point census area 3. Two northern harriers were observed east of Morrison during the fall driving census (**Appendix 3-4**, Figure 3).

Neotropical migrants

Neotropical migrants are birds that winter in the American tropics and migrate to the United States and Canada to breed. Groups such as flycatchers, vireos, swallows, thrushes, and warblers are Neotropical migrants. A total of 33 species of Neotropical migrants were observed within the project corridor (**Appendix 3-1**).

The breeding season survey (**Appendix 3-6**, Table 1) detected 20 species of these migrants that nest within the project corridor. The most abundant Neotropical migrant species was the chimney swift (44 individuals) in and around the town of Morrison. The most widely distributed species within the project corridor was the eastern wood-pewee (5 point census sites). The eastern wood-pewee occurs within areas of open forests or woodlands, wooded edges, and parks. All of the nine breeding bird point census sites (**Appendix 3-6**, Table 1) contained Neotropical migrants. The species composition and the number of individuals present at a point varied. Point census site 6 (a forest fragment, **Appendix 3-4**, Figure 3) contained the most Neotropical migrant species (7) and the most individual birds (10). Species of Neotropical migrants occupy many different kinds of habitat from woody streamside thickets, forest edges, open woodlands, shrubby areas, parks, old brushy fields, early successional fields, hedgerows to grasslands and forests. The more sensitive species are area-sensitive and require large contiguous acreages of grassland or forest habitat (See Zylka et al. 2008). During the avian survey few individuals of sensitive species were detected within the project corridor (**Appendix 3-6**, Table 1).

Recreationally and Commercially Important Species

Four game species were detected in the area (**Appendix 3-1**), two waterfowl, one upland game bird, the mourning dove, and the American crow.

Threatened and Endangered Bird Species

Two Illinois Endangered Species were recorded during the avian studies of the US 30 project area addendum:

Northern Harrier (*Circus cyaneus*) Illinois Endangered (see Macwhirter et al. 1996)

Two northern harriers were observed east of Morrison during the fall driving census (**Appendix 3-4**, Figure 3), but no evidence of breeding was found in the project area.

Northern Harriers have been known to nest in northwestern Illinois. They require 'large grassland tracts' for breeding (over 200 acres, J. Herkert personal communication) and will breed in both dry and wet grasslands (Apfelbaum & Seelbach 1983, Macwhirter et al. 1996).

Osprey (*Pandion haliaetus*) Illinois Endangered (see Poole et al. 2002).

During the spring driving census, an osprey was seen flying over farm fields east of point census area 4 (**Appendix 3-4**, Figure1). Very few osprey nests are currently active in Illinois (J. Herkert personal communication). In addition, ospreys require large bodies of water for breeding. Migrating ospreys are not an uncommon sight in Illinois, even well removed from water.

MAMMALS

J.F. Merritt, Jean Mengelkoch, Joyce Hofmann, Samantha Carpenter, Steve Amundsen

During the 2008 field season the mammal survey in the US 30 corridor addendum included mist netting for the federal-endangered Indiana bat (*Myotis sodalis*) at two locations and live trapping for the state-threatened Franklin's ground squirrel (*Spermophilus franklinii*) at two locations. Additions to the project corridor did not include new types of habitat or change the potential composition of the mammalian fauna (**Appendix 3-2** in Zylka et al. 2008).

AMPHIBIANS AND REPTILES

Andy Kuhns

Results

The US 30 project corridor was visited by INHS scientists on 14, 15 April; 22, 23 May; 28 August; and 05 September 2008. Four amphibian species and three reptile species were observed during surveys in the project corridor and in the immediate vicinity of the project corridor. A map depicting the location of amphibian and reptile survey sites is found in **Figure 3-2**, which is attached at the end of this chapter. **Appendix 3-2** lists the sites surveyed in 2008 for amphibians and reptiles. **Appendix 3-3** lists the amphibian and reptile species observed at the survey sites. Additions to the project corridor did not include new types of habitat or change the potential composition of the amphibian and reptile fauna (**Appendix 3-3** in Zylka et al. 2008).

DISCUSSION

The majority of the amphibian and reptile species encountered in the US 30 project corridor are considered common or abundant in Illinois (Phillips et al., 1999). Some amphibian and reptile species that were not encountered but likely occur in the US 30 addendum B corridor include: spring peeper (*Pseudacris crucifer*), western chorus frog (*Pseudacris triseriata*), Bullfrog (*Rana catesbeiana*), painted turtle (*Chrysemys picta*), fox snake (*Elaphe vulpina*), plains garter snake (*Thamnophis radix*), and common garter snake (*Thamnophis sirtalis*).

Important use areas for amphibians and reptiles are defined as specific areas (pond, marsh, or similar feature) having a high species diversity relative to other areas in the region. Specific areas within the proposed US 30 corridor with 5 or more amphibian and reptile species are designated as important use areas. However, it is understood that in areas where natural habitats are fragmented by agriculture, municipalities, roads, and other man-made features, any area of natural habitat may potentially contain 5 or more species of amphibians and reptiles, especially if there is an aquatic component to the habitat. Two sites were identified as Important Use Areas; even though 5 species were not found in either of these two areas they are being identified as Important Use Areas because of the outstanding potential for a number of species to occur in the areas and the unique habitat.

Important use area one is a sedge meadow/wet meadow complex East of Yorktown Road, (Site AQ 23; wetland sites 101 and 103; **Figure 3-1**), 9.2 km East of Morrison. Three species of amphibians were documented (American Toad, Northern Leopard Frog, and Green Frog) at this site during surveys in 2008. Had the site been visited earlier in the year several spring and summer breeding amphibians would likely have been observed as well including: the Northern Cricket Frog, Gray Treefrog, Spring Peeper, Western Chorus Frog, American Bullfrog, and Common Gartersnake among others.

Important use area two is a series of ravines 2.4 km NNE of Morrison at the northern edge of the corridor. These ravines lead to a sedge meadow (AQ 24, wetland site 108 **Figure 3-1**), that appears to be excellent habitat for the state listed Four-toed Salamander (*Hemidactylum scutatum*). While the sedge meadow itself is not within the proposed corridor, loss or alteration of the ravines could negatively impact the quality of the sedge meadow.



Figure 3-1 Important Use Areas for Amphibians and Reptiles in the Addendum 1 US Route 30 corridor

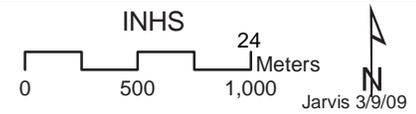
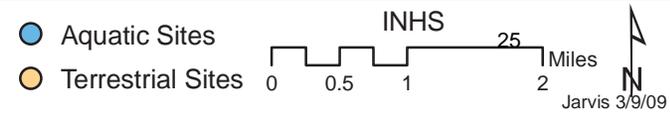




Figure 3-2 Amphibian and Reptile Sample Sites in the Addendum 1 US Route 30 corridor



Chapter 4 Aquatic Resources

No aquatic resource studies (neither surveys for fishes, unionid mussels, or aquatic macroinvertebrates, nor monitoring of water quality) were tasked for 2008; thus, none were conducted.

For data collected in 2007 on aquatic resources in the US 30 corridor, please see Zylka et al. (2008).

Chapter 5 Wetlands

JASON ZYLKA, IAN DRAHEIM, BRIAN WILM, BRAD ZERCHER

Wetland determinations were conducted along the proposed corridor in Whiteside County. All potential wetlands within the addendum corridor (**Figure 1-1**) were examined. Wetland delineations follow guidelines and definitions set forth by the U.S. Army Corps of Engineers (Environmental Laboratory 1987). Other reference material used in wetland delineations included: Mohlenbrock (2001), Reed (1988), Swink and Wilhelm (1994), Taft et al. (1997), Sabata (1995) and USDA-Natural Resources Conservation Service (2002). Thirty-one wetland determinations were performed. Twenty-one sites were determined to be wetlands. These sites are depicted in **Appendix 5-1**. Wetland acreage in the US30 addendum corridor totals approximately 20.31 ha (50.20 acres). More details on these sites can be found in the comprehensive wetland summary table, included as **Table 5-1**, or in the individual wetland delineation forms in **Appendix 5-2**.

This chapter will focus specifically on wetlands within the Route 30 addendum corridor, however, the numbering of sites will be sequential with the sites in the original corridor to avoid confusion. For information on wetland sites 1-83 see Zylka et al, 2008.

Wetland Site descriptions

Wet meadows were the most frequently encountered wetland type in the addendum corridor, accounting for just more than half of all wetlands in the corridor (11 sites). These sites accounted for approximately 15.24 ha (37.67 acres) of the total wetland area, or 75.0% of the total wetland acreage in the corridor. Forested wetlands accounted for four sites within the corridor and a total of approximately 0.58 ha (1.43 acres). Two marshes were present in the project corridor and totaled 1.12 ha (2.76 acres). Four sedge meadows were present in the corridor and totaled 3.38 ha (8.34 acres). Two of these sites (Sites 103 and 108) represented the most floristically rich sites in the addendum corridor with respective FQI scores of 29.70 and 26.17. These scores indicate that these two sites have evidence of native character and may be considered an environmental asset. Wetland types are compared to all other cover types in the project area in **Table 2-1**.

Reed canary grass (*Phalaris arundinacea*) was by far the most dominant plant in wet meadows. Another common dominant was sawtooth sunflower (*helianthus grosseserratus*). Most wet meadows in the corridor were of low natural quality.

The most frequent dominant species in marshes in the corridor were reed canary grass (*Phalaris arundinacea*) and common cattail (*Typha latifolia*). Most marshes in the project area were of fair quality.

The sedge meadows in the addendum corridor shared tussock sedge (*Carex stricta*) as a common dominant. These sites represent the best floristic quality of the corridor with sites 103 and 108 standing out as the best floristic quality scores in the corridor.

The marshes and forested wetlands in the addendum corridor are few in number and have a small total area. These sites lack any common characteristics.

Table 5-1 Wetland Summary Table

	Plant community	NWI Classification	Soil Series	Size ha (acres)	FQI	Wetness coefficient	% Adventive
Site 85	Dominant vegetation: Red footed spike rush (herb), Cursed buttercup (herb)						
	Sedge meadow	PEMC, PEMCH	Sawmill silty clay loam	0.49 (1.21)	1.57	-4.38	12.5
Site 86	Dominant vegetation: Reed canary grass (herb), Sawtooth sunflower (herb)						
	Wet meadow	PEMAD	Sawmill silty clay loam.	8.19 (20.24)	15.40	-2.12	18.1
Site 91	Dominant Vegetation: Sedge (herb)						
	Sedge meadow	None	Birds silt loam	0.22 (0.55)	2.19	-.72	27.3
Site 92	Dominant Vegetation: Virginia waterleaf (herb), Jewelweed (herb), Honewort (herb), Black walnut (tree)						
	Forested wetland	PEMC	undetermined	0.04 (0.09)	3.00	-0.20	20.0
Site 95	Dominant Vegetation: Giant ragweed (herb), Stinging nettle (herb)						
	Wet meadow	PFO1A	undetermined	0.11 (0.28)	9.04	0.53	21.1
Site 96	Dominant Vegetation: Reed canary grass (herb)						
	Wet meadow	PSS1A	undetermined	0.03 (0.09)	6.41	-1.05	26.3

	Plant community	NWI Classification	Soil Series	Size ha (acres)	FQI	Wetness coefficient	% Adventive
Site 98	Dominant Vegetation: Reed canary grass (herb)						
	Wet meadow	PEMC	undetermined	0.05 (0.13)	6.72	-1.80	3.7
Site 99	Dominant Vegetation: Reed canary grass (herb), Sawtooth sunflower (herb), Sedge (herb)						
	Wet meadow	none	undetermined	0.07 (0.17)	7.67	-2.50	25.0
Site 100	Dominant Vegetation: Reed canary grass (herb), Common fox sedge (herb), Tussock sedge (herb), Red footed spike rush (herb)						
	Sedge meadow	none	undetermined	0.19 (0.46)	2.41	-2.00	15.4
Site 101	Dominant Vegetation: Reed canary grass (herb), Box elder (herb, tree)						
	Wet meadow	PEMC	Sawmill silty clay loam	3.81 (9.41)	2.53	-0.45	15.0
Site 103	Dominant Vegetation: Tussock sedge (herb)						
	Sedge meadow	PEMC	Lena muck	2.84 (7.02)	29.70	-3.65	2.0
Site 104	Dominant Vegetation: Cottonwood (tree), Reed canary grass (herb)						
	Forested wetland	PUBGX	undetermined	0.33 (0.82)	5.08	-3.06	12.5
Site 105	Dominant Vegetation: Wood nettle (herb), Canada clearweed (herb), Downy hawthorn (tree), Box elder (tree)						
	Forested wetland	none	Beaucoup silty clay loam	0.09 (0.23)	9.15	-1.00	13.3

	Plant community	NWI Classification	Soil Series	Size ha (acres)	FQI	Wetness coefficient	% Adventive
Site 106	Dominant Vegetation: Rice cutgrass (herb), Narrow-leaved cattail (herb)						
	Marsh	none	undetermined	0.6 (1.48)	7.50	-2.68	15.8
Site 107	Dominant Vegetation: Common smartweed (herb), Barnyard grass (herb), Red top (herb)						
	Wet meadow	none	undetermined	0.28 (0.69)	5.67	-4.64	18.2
Site 108	Dominant Vegetation: Tussock sedge (herb), Jewelweed (herb)						
	Sedge meadow	none	Undetermined	0.13 (0.32)	26.17	-3.35	2.7
Site 109	Dominant Vegetation: Reed canary grass (herb)						
	Wet meadow	none	Drummer silty clay loam	0.04 (0.11)	12.61	-2.83	5.56
Site 110	Dominant Vegetation: Reed canary grass (herb), Sawtooth sunflower (herb)						
	Wet Meadow	none	undetermined	1.86 (4.59)	11.63	-1.08	20.0
Site 111	Dominant Vegetation: Sweet cicely (herb), Reed canary grass (herb), White mulberry (tree)						
	Forested wetland	none	Drummer silty clay loam	0.12 (0.3)	6.35	0.17	29.4
Site 113	Dominant Vegetation: Sedge (herb), Reed canary grass (herb)						
	Wet Meadow	none	Sawmill silty clay loam	0.31 (0.76)	12.56	-2.00	17.6

	Plant community	NWI Classification	Soil Series	Size ha (acres)	FQI	Wetness coefficient	% Adventive
Site 114	Dominant Vegetation: Sedge (herb), Spotted joe pye weed (herb), Arrowhead (herb)						
	Marsh	PEMC	undetermined	0.52 (1.28)	12.25	-2.50	0.0

Wildlife Habitat

Wetlands along riparian corridors in the project area provide valuable wildlife habitat for migrating wildlife and also serve as refugia for wildlife traveling through the natural corridors within the project area.

Two sites, Site 103 and Site 108, have the potential to provide high quality wildlife habitat due to the high quality vegetation present at these sites.

Ponds in the project area, regardless of low floristic quality or wetland status, are important year-round water sources for wildlife, as well as important breeding habitat for amphibians. Marshes are important cover, nesting habitat, and foraging habitat for birds such as rails and bitterns. Wet meadows can also provide cover, nesting habitat, and foraging habitat for a number of birds and mammals.

Floristic Quality Index

The Floristic Quality Index (FQI) was applied to the vegetation of each wetland site. For the purposes of discussion here, wetlands with FQI values of less than 10 indicate low natural quality; 5 or less indicate very low quality. Sites with values of 20 or more (mean $C \geq 3.0$) have at least some evidence of native character and may be considered environmental assets.

FQI averaged 9.31, for all wetlands associated with the addendum corridor, with a low of 1.57 and a high of 29.70 (Site 103). Wet meadows ranged from 1.57 to 12.61 averaging 8.34. Forested wetlands ranged from 3.0 to 9.15, with an average of 7.86. Marshes had values ranging from 7.50 to 12.25, with an average of 9.88. The sedge meadows in the project area ranged between 2.19 and 29.70. Their average quality was comparatively high at 15.11. FQI values for all wetland sites are presented in the wetland summary table (**Table 5-1**).

Wetness Coefficient

A wetness coefficient was determined for all wetlands sites associated with the US30 project corridor and included in the summary table (**Appendix 5-2**). Each plant species occurring in a particular wetland site is given a coefficient of wetness (W), based on its indicator status (**Table 5-2**). These numbers are then summed for all species within the site and then divided by the number of species present to determine the mean wetness coefficient, or the wetness coefficient for the site (Taft et al. 1997).

Table 5-2 Wetness coefficients as based on wetland indicator status.

Indicator Status	Wetness Coefficient
OBL	-5
FACW+	-4
FACW	-3
FACW-	-2
FAC+	-1
FAC	0
FAC-	1
FACU+	2
FACU	3
FACU-	4
UPL	5

Chapter 6 Threatened and Endangered Species

Plants

William Handel and John Taft

No new threatened or endangered plants were found in the US 30 addendum corridor. Please refer to Zylka et al. (2008) for information on threatened and endangered plants in the project corridor.

Amphibians and Reptiles

John Petzing

No new threatened or endangered amphibians or reptiles were found in the US 30 addendum corridor. Please refer to Zylka et al. (2008) for information on threatened and endangered amphibians and reptiles in the project corridor.

MAMMALS

J.F. Merritt, Jean Mengelkoch, Joyce Hofmann, Samantha Carpenter, Steve Amundsen

Information on the natural history of the Indiana bat and Franklin's ground squirrel can be found in Chapter 6 of Zylka et al. (2008). No additional records or specimens of Indiana bats or Franklin's ground squirrels have been documented (INHD and INHS Rabies Specimen Database maintained by J.E. Hofmann).

Mist netting Sites and Results

Numbering of sites is continued from Zylka et al. (2008). Site 1 on the Rock River also was mist netted in 2007 (Zylka et. al. 2008). At that time two individuals that exhibited some characteristics of the Indiana bat were captured.

Site 1 – side channel of the Rock River north of US 30, Whiteside County (T.21N, R.7E, SE/4, Sec. 25, Sterling 7.5' topographic quadrangle; UTM 271602mE, 4628222mN, Zone 16 NAD 83); 11 and 12 August 2008 (Figure 6-1, Appendix 6-1). West of the netting site there was a 40-m band of trees, a steep embankment, and an agricultural field. East of the site extensive floodplain forest dominated by silver maples (*Acer saccharinum*) was present on an island that separated the side channel from the main channel of the Rock River. Net A consisted of 12-m long nets suspended over the side channel. The west pole was in the water about 3 m from the edge and in front of low branches of a silver maple. The east pole was near the water's edge. The width of the water in the channel was 16 m and the water was up to 1 m deep. There was a partial canopy on the downstream side of the net. Net B consisted of 12-m long nets suspended across the side channel 40 m downstream of Net A and 40 m upstream of the US 30 bridge. This net was placed in the same location as in 2007. The west pole was in the water about 2 m from the water's edge and was in front of low branches of a silver maple. The east pole was near the water's edge and in front of the branches of a silver maple. There was no canopy above the net. The water in the channel was 14-15 m wide and up to 1 m deep. The vast majority of the trees in the area were silver maples.

Three species of bats were caught at this site including the eastern pipistrelle (*Pipistrellus subflavus*), little brown bat (*Myotis lucifugus*), and big brown bat (*Eptesicus fuscus*; Table 6-1). No Indiana bats were caught at this site.

Site 2 – Spring Brook south of Kruger Road, Whiteside County (T.22N, R.4E, NE/4, Sec. 32, Union Grove 7.5' topographic quadrangle; UTM 744295mE, 4638177mN, Zone 15 NAD 83); 5 and 6 August 2008 (Figure 6-1, Appendix 6-1). There was extensive forest on all sides of Spring Brook. Net A consisted of 6-m long nets suspended across a riffle in the stream. The channel of shallow water was 7 m wide. The north pole was at the edge of a steep, forested hill. The low branches of a small tree on the north bank extended halfway across the channel. The south pole was 1 m from the water's edge on a gently sloping bank, under the branches of a tree. There were a downed trunk and downed tree downstream of the net; thus the flyway was somewhat obstructed. There was a partial canopy right above the net and a mostly closed higher canopy. Net B consisted of 6-m long nets suspended across the stream 30 m upstream of Net A. The net was at the junction of a small riffle with a pool on the upstream side. The north pole was in the water at the base of a 3-m high vegetated embankment. The south pole was 0.5 m from the water's edge on a gently sloping embankment that was 1.5 m high. There was a broken tree across the channel 5 m upstream. There was a curve in the channel upstream of Net B and between the nets. Net C consisted of 2.6-m long nets placed across the mouth of a narrow, wooded ravine leading toward the creek between nets A and B from the north. Trees in area included oaks (*Quercus* spp.), hackberry (*Celtis occidentalis*), basswood (*Tilia americana*), hickory (*Carya* sp.), and walnut (*Juglans* sp.). There was a relatively dense understory.

Five species of bats were caught at this site including the eastern pipistrelle, little brown bat, northern bat (*M. septentrionalis*), big brown bat, and eastern red bat (*Lasiurus borealis*; Table 6-1). In addition, two bats escaped from the nets before they could be identified to species. No Indiana bats were caught at this site.

A forested tract in the vicinity of Spring Brook contained numerous dead trees, including some with exfoliating bark that represent potential roost sites for Indiana bats. This tract was located north of Kruger Road and east of Millard Road. It was not a suitable location for mist netting.

Table 6-1. Bats captured at the US 30 project corridor and addendum, Whiteside County, Illinois, August 2008.

<u>Common Name</u>	<u>Species</u>	<u>No.</u>	<u>Sex</u>	<u>Age</u>	<u>Reprod.</u>
eastern red bat	<i>Lasiurus borealis</i>	1	F	J	NR
eastern pipistrelle	<i>Peromyotis subflavus</i>	1	F	J	NR
big brown bat	<i>Eptesicus fuscus</i>	1	M	J	NR
		3	F	A	PL
		2	M	A	NR
		1	F	J	NR
northern bat	<i>Myotis septentrionalis</i>	2	-	-	-
		1	F	A	PL
		1	F	J	NR
		1	M	J	NR
little brown bat	<i>Myotis lucifugus</i>	3	F	A	PL
		3	M	A	NR
		5	F	J	NR
		5	M	J	NR
		2	-	-	-
unknown		2	-	-	-

M = male; F = female; A = adult; J = juvenile (young-of-year); P = pregnant; L = lactating; NR = non-reproductive

Trapping Sites and Results

Trapping for Franklin's ground squirrel was conducted at two locations within the US 30 addendum. Numbering of these sites is continued from Zylka et al. (2008).

Site 6 – north of Morrison Cemetery in Morrison, Whiteside County, Illinois (T.21N, R.5E, Sec. 7, SE/4, Morrison 7.5' topographic quadrangle; 254039mE, 4633663mN NAD 83 Zone 16); 19-21 August 2008 (Figure 6-1, Appendix 6-1). Seventy traps were placed in a grid in an old field with rolling hills.

This site was cover typed as a non-native grassland dominated by non-native cool season grasses and forbs. Both native and non-native shrubs are scattered throughout the area. Dominant species in the site include the following: *Bromus inermis* (smooth brome grass), *Cornus racemosa* (gray dogwood), *Dipsacus laciniatus* (cut-leaved teasel), *Festuca pratensis* (meadow fescue), *Lonicera maackii* (amur honeysuckle), *Poa pratensis* (Kentucky bluegrass), *Rhus glabra* (smooth sumac), and *Solidago canadensis* (Canada goldenrod; W Handel, INHS, pers. com.).

According to the Natural Resources Conservation Service (NRCS) online Web Soil Survey, the soils at the site include Seaton silt loam, Bertrand silt loam, and Tell silt loam (<http://websoilsurvey.nrcs.usda.gov/>). All of these soils are well drained; thus the substrate is suitable for Franklin's ground squirrel.

The high temperature on 19 August was 28°C (84°F) and the low was 15°C (59°F). The day started out clear, but it was partly cloudy by mid-day. On 20 August there were scattered clouds in the morning and it was partly cloudy by afternoon. The high temperature was 27°C (82°F) and the low 15°C (60°F). On 21 August the high temperature was 23°C (75°F), with a low of 17°C (64°F). It was cloudy in the morning. There was a light mist around noon, and it was overcast but bright by late afternoon.

Traps were set at this site for a total of 205 trap-days (one trap set for one day = one trap-day). One eastern cottontail (*Sylvilagus floridanus*) was caught. No Franklin's ground squirrels were caught at the site.

Site 7 – north of Norrish Road in Morrison, Whiteside County, Illinois (T.21N, R.5E, Sec. 8, NW/4, Morrison 7.5' topographic quadrangle: 254638mE, 4634994mN NAD 83 Zone 16); 9-11 September 2008 (Figure 6-1, Appendix 6-1). There were three transects of 15 traps each that were oriented east-west across the field and an additional line of 15 traps that followed the southern edge of the field.

Site 7 was cover typed as CRP land with prairie vegetation. It is dominated by planted prairie grasses and, in some areas, non-native cool season grasses. Dominant species on the site include the following: *Andropogon gerardii* (big bluestem), *Bromus inermis*, *Cornus racemosa*, *Poa pratensis*, *Rhus glabra*, *Solidago canadensis*, and *Sorghastrum nutans* (Indian grass; W Handel, INHS, pers. com.).

According to the NRCS online Web Soil Survey, the soils at this site are also well drained (<http://websoilsurvey.nrcs.usda.gov/>). They include Seaton silt loam, Tell silt loam, and Seaton-Timula silt loam.

There was a high temperature of 20°C (69°F) on 9 September, with a low of 5°C (42°F). Fog burned off while traps were being set in the morning revealing a clear sky, which was partly cloudy by mid-day. On 10 September the sky was mostly clear all day, with a high temperature of 22°C (73°F) and a low of 5°C (42°F). The high temperature on 11 September was 23°C (75°F) and the low 10°C (50°F). The sky was cloudy or partly cloudy all day.

Traps were set at this site for a total of 172 trap-days. One eastern cottontail was caught. No Franklin's ground squirrels were caught at the site.

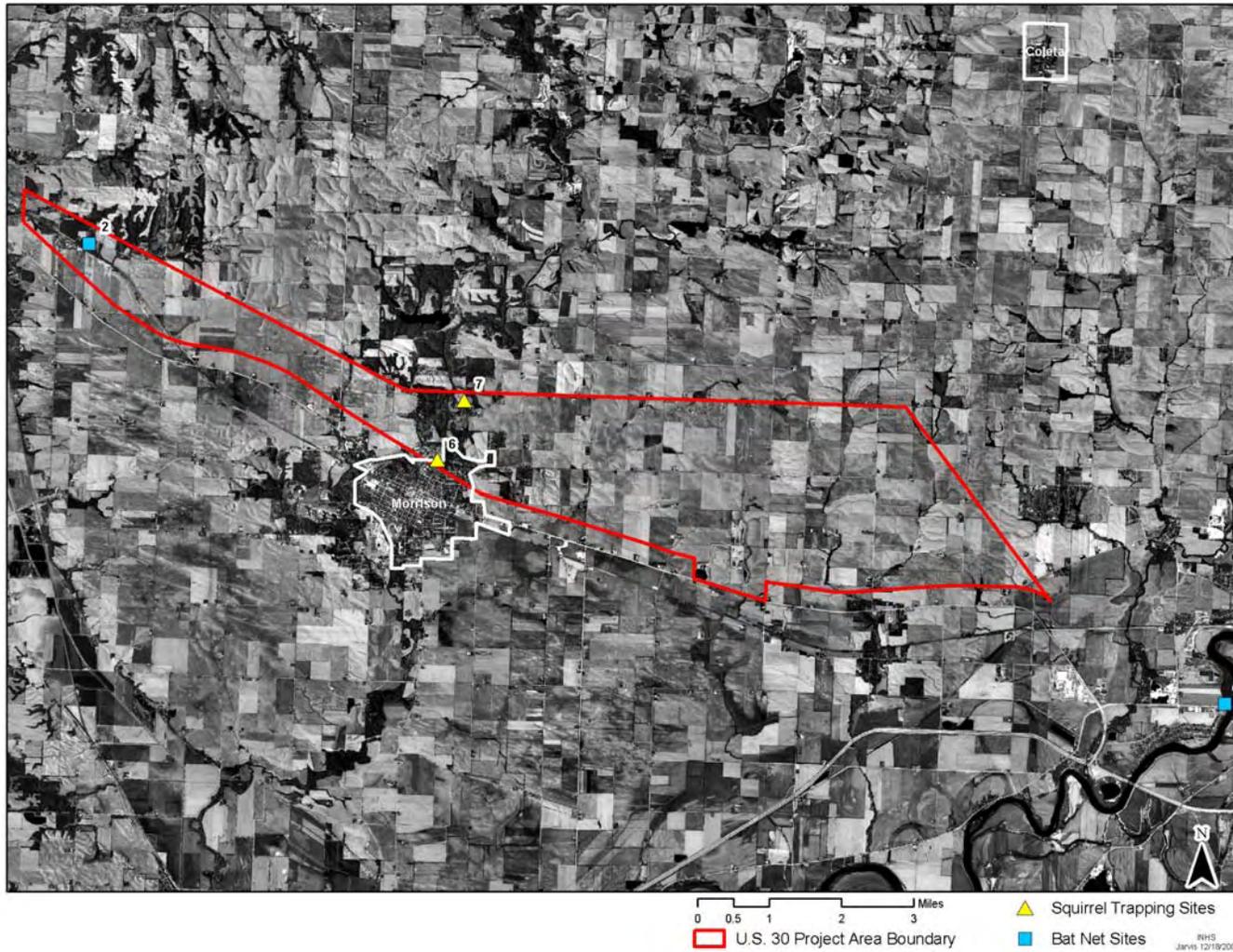


Figure 6-1. Locations of netting sites for Indiana bats and trapping sites for Franklin's ground squirrels in the US 30 corridor addendum, Whiteside County, Illinois, 2008

Chapter 7 Ecological Sensitive Areas

Illinois Natural Areas

The Illinois Natural Areas Inventory (INAI) was conducted over a three-year period during the mid 1970's to document remaining significant and exceptional examples of natural communities and other features in Illinois (White 1978). The INAI established seven categories of natural areas based on significant features and a grading system to rank natural quality (White 1978). The natural quality of a community type was graded as A (relatively stable or undisturbed communities), B (late successional or lightly disturbed communities), C (mid-successional or moderately to heavily disturbed communities), D (early successional or severely degraded communities), or E (very early successional or very severely disturbed communities). There has been an ongoing effort to update the inventory since the original study as new sites are discovered and other sites lose qualification through habitat destruction or degradation. In general, only A and B communities are designated as significant or exceptional features, although many natural areas include some Grade C areas.

No INAI sites are known from within the US Route 30 corridor. One INAI site occurs within a one-mile buffer. Part of Lyndon Agnew Prairie Nature Preserve is recognized by the INAI. Approximately 35 acres of this 78 acres site includes Grades A, B, and C dry-mesic, mesic, and wet mesic prairie.

Illinois Nature Preserves

Nature preserves are areas of land or water in public or private ownership that are formerly dedicated to receive maximum protection of significant natural features. The central goal of the nature preserve system, currently with slightly over 340 preserves in the state, is to protect and preserve examples of all significant natural features found in Illinois for the purposes of scientific research, education, conserving biodiversity, and esthetic enjoyment. Nature preserves are administered largely by the Illinois Nature Preserves Commission (INPC). Preserves usually are the shared responsibility of the INPC, the Illinois Department of Natural Resources, and land owners (McFall and Karnes 1995). Part of Lyndon-Agnew Prairie Nature Preserve is within the US Route 30 study corridor; however, the highest quality portion recognized by the INAI is outside the project limits. Two areas cover typed as prairie (**Figure 7-1, attached at the end of Chapter 7**) are buffer areas for the Lyndon-Agnew Prairie Nature Preserve and are owned by the Natural Land Institute (pers. com. Jerry Paulson, Director, Natural Land Institute). These two sites are under active management by the Whiteside Soil and Water Conservation District (pers. comm. David Harrison, NRCS), but are not considered high-quality remnants.

Illinois Land and Water Reserves

Land and Water Reserves are similar to nature preserves but have fewer restrictions on land use. The program is administered by the Illinois Nature Preserves Commission and there are a total of 112 dedicated Land and Water Reserves in Illinois. No Land and Water Reserves occur within the US Route 30 corridor or within the one-mile buffer.

The Natural Heritage Landmarks

The Natural Heritage program was established in 1981 and recognizes landowners who voluntarily preserve land with a non-binding agreement, which is often a first step toward dedication of land as a nature preserve. Land or water may qualify for the program if it is an outstanding natural area or endangered species site that is included on the state's Natural Areas Inventory. The program provides a sign and certificate recognizing the Landmark designation. No Natural Heritage Landmarks occur within the US Route 30 project corridor,

although one exists within the one-mile buffer. Prairie Trails Natural Heritage Landmark occurs just south of Chicago Northwestern Railroad and is adjacent to Savanna described in **Chapters 2, 6, and 7**. It is a large area with dry sand savanna and dry sand prairie communities.

Ecologically Sensitive Botanical Areas

Apart from the above categories, there were four sites in the IL Route 30 study corridor that, based on the botanical surveys, were considered ecologically sensitive (**Figure 7-1**). They are considered ecologically sensitive areas because they either: 1) contain one or more populations of threatened or endangered species, 2) have a concentration of plants that are rare or uncommon in the Illinois and/or have a concentration of species ranked with Coefficients of Conservatism (Taft et al. 1997) greater than 6, and 3) they are plant community types that are considered rare or uncommon in Illinois. Three sites were identified in the US Route 30 study corridor: the Dry to Dry-mesic Sand Savanna, Dry-Mesic Gravel Prairie, and Dry Sand Hill Prairie described previously (Chapters 2 and 6) and shown on **Figure 7-1**. One additional site, a sedge meadow, was found during the 2008 fieldwork in Addendum 1 (**Figure 7-1**). One other dry sand hill prairie community occurred within the corridor. It had a population of kitten tails, a state threatened species. This latter site was not considered an ecological sensitive area because it was not as botanically diverse as the other four sites and there is continuing human disturbance evident at the site.

Dry to Dry-mesic Sand Savanna (Savanna Cover Type) - This area is a mixture of dry to dry-mesic sand savanna and dry sand prairie communities. The whole area was cover-typed as Savanna because of very fine-scale heterogeneity among the savanna and prairie communities. The soil type in this savanna community is Plainfield sand with 6 - 20% slopes. This area occurs on a series of sand dunes reaching their greatest height in the study area adjacent to the Chicago Northwestern Railroad. The dry sand savanna communities occur on the ridge tops. On some of the sand dunes, there are stands of dense, small-to-medium size (10 - 20 cm dbh) black oak. Some ridges were planted in pines (*Pinus* spp.). Sand blowouts exist throughout the area. Most of the rare flora associated with savanna habitat occurred in these blowout areas. On the more level terrain, between the dunes and swales, dry-mesic savanna and dry-mesic sand prairie communities existed and the vegetation is less sparse. There is evidence of past disturbance with some old livestock fences, but livestock grazing has ceased. Past fire also is evident, and fire scars occur on some of the trees near the railroad.

A total of 147 species, 86% native, were found at this site (**Appendix 7-1**). Twenty-nine species had a coefficient of conservatism (C) value of 7 or above, totaling 19.7% of the flora found during the survey. The site contains eight populations of three state endangered or threatened species: Gray's sedge, beach heath and large-flowered beard tongue. Complete species list and results from Floristic Quality Assessment are found in **Appendix 7-1**. Element of Occurrence data can be found in **Appendix 6-1**. The dominant tree in this community is black oak. Dominant sapling/shrubs in this community include: gray dogwood, wafer ash (*Ptelea trifoliata*), aromatic sumac, and common dewberry (*Rubus flagellaris*). Dominant Grass/sedge species include beach three-awn grass (*Aristida tuberculosa*), Indian grass (*Sorghastrum nutans*), six-weeks fescue (*Vulpia octoflora*), sand-bracted sedge (*Carex muhlenbergii*), Smooth-fruited oak sedge (*Carex tonsa*), Schweinitz's flatsedge, and the non-native cheat grass (*Bromus tectorum*). Dominant forbs include horsemint, western ragweed, poppy mallow, nodding spurge (*Chamaesyce maculata*), golden aster, common rock rose, bush clover, and pale beard-tongue. Common non-native species include yarrow (*Achillea millefolium*), cheat grass, and smooth brome grass. Species that have a coefficient of conservatism (C) value of 7 or greater include; fame flower (*Talinum rugospermum*; C = 9), beach heather (C = 9), poppy mallow (C = 9), hairy grama (*Bouteloua hirsuta*; C = 9), green milkweed (*Asclepias viridiflora*; C

= 9), beach three awn grass (*Aristida tuberculosa*; C = 9), Carolina anemone (*Anemone caroliniana*; C = 9), rock selaginella (*Selaginella rupestris*; C = 8), Canada plum, (*Prunus nigra*; C = 8), large-flowered beard tongue (C = 8), Plains prickly-pear (*Opuntia macrorhiza*; C = 8), Gray sedge (C = 8), New Jersey tea (*Ceanothus americanus*; C = 8), smooth-fruited oak sedge (C = 8), lead plant (*Amorpha canescens*; C = 8), bird's foot violet (*Viola pedata*; C = 7), goat's rue (*Tephrosia virginiana*; C = 7), purple milkwort (*Polygala polygama v. obtusata*; C = 7), cleft phlox (*Phlox bifida*; C = 7), slender-leaved panic grass (*Panicum linearifolium*; C = 7), starved panic grass (*Panicum depauperatum*; C = 7), rough blazing star (*Liatris aspera*; C = 7), June grass (C = 7), western sunflower (*Helianthus occidentalis*; C = 7), common rockrose (*Helianthemum canadense*; C = 7), tansy mustard (*Descurainia pinnata*; C = 7), Canada milk vetch (*Astragalus canadensis*; C = 7), sand milkweed (*Asclepias amplexicaulis*; C = 7), and lyre-leaved rock cress (*Arabis lyrata*; C = 7).

Dry Sand Hill Prairie - The dry sand hill prairie is located on the bluff east of Cattail Creek (**Figure 7-1**). Species composition is very similar to the sand prairie communities in the Savanna cover type with a few exceptions. This natural community is rare in Illinois (pers. comm., Randy Nyboer, IDNR). Woody vegetation is encroaching along the edges, but the prairie is still open and dominated by sand prairie grasses and forbs. The soil is mapped as Plainfield sand, the same soil that makes up the dunes of the Savanna community (Sabata 1995).

Seventy-one species, 94% native, were found at this site. Twenty species had a coefficient of conservatism (C) value of 7 or greater, totaling 28.1% of the flora found during the survey. The site contains four populations of three state endangered or threatened species: kitten tails, prairie dandelion, and broomrape. Complete species list and results from Floristic Quality Assessment are found in **Appendix 7-1**. Dominant grasses and sedges that occurred in this community type include little bluestem, sand-bracted sedge, and the non-native cheat grass. Common forbs included Hill's thistle, horsemint, pale beard tongue, western ragweed, hairy puccoon, and field sorrel. The most common non-native species were cheat grass and yarrow. Species that have a coefficient of conservatism (C) value of 7 or greater include broom rape (C = 10), prairie cinquefoil (*Potentilla arguta*; C = 10), poppy mallow (*Callirhoe triangulata*; C = 9), white prairie clover (*Dalea candida*; C = 9), prairie dandelion (C = 9), lead plant (C = 8), candle anemone (*Anemone cylindrica*; C = 8), kitten tails (C = 8), purple prairie clover (*Dalea purpurea*; C = 8), Hill's thistle (C = 7), rockrose (*Helianthemum bicknellii*; C = 7), June grass (C = 7), rough blazing star (C = 7), hairy puccoon (C = 7), starved panic grass (C = 7), goat's rue (C = 7), false pennyroyal (*Trichostema brachiatum*; C = 7), and prairie alumroot (*Heuchera richardsonii*; C = 7).

Dry-mesic Gravel Hill Prairie - This natural community is very rare in this part of Illinois (pers. comm., Randy Nyboer, IDNR). This area has limestone bedrock near the surface; weathered limestone forms the gravelly substrate. The prairie vegetation is common on limestone terrace upslope from rock outcroppings (up to 30 feet in height) bordering the western boundary of the Cattail Creek floodplain. The prairie includes an interesting mix of floristic elements from the local sand prairies with many species characteristic of calcareous soils associated with limestone outcroppings including small yellow flax, rock sandwort, and ladies' tresses (*Spiranthes magnicamporum*). Fire absence has caused some of the area to become infested with woody exotic and native species, including an abundance of eastern red cedar (*Juniperus virginiana*). Sixty-eight species (79% native) were found at this site. Eighteen species had a coefficient of conservatism (C) value of 7 or greater, totaling 26.4% of the flora found during the survey. The site contains one population of kitten tails, a state threatened species (**Appendix**

6-1). Complete species list and results from Floristic Quality Assessment are found in **Appendix 7-1.**

Dominant tree and shrub species include red cedar, wafer ash, aromatic sumac, and the non-native species Siberian elm (*Ulmus pumila*) and bush honeysuckle (*Lonicera maackii*). Dominant grasses include side-oats grama, little bluestem, and the non-native smooth brome. Common herbaceous ground-cover species include yarrow, lyre-leaved rock cress, kitten tails, bastard toad-flax, spiked lobelia (*Lobelia spicata*), pale beard tongue, and dyersweed goldenrod (*Solidago nemoralis*). Species that have a coefficient of conservatism (C) value of 7 or above include rock sandwort (C = 10), Jointweed (*Polygonella articulate*; C = 9), long-stalked panic grass (*Panicum perlongum*; C = 9), downy gentian (*Gentiana puberulenta*; C = 9), hairy grama (*Bouteloua hirsuta*; C = 9), northern prairie drop seed (C = 9), fringed puccoon (*Lithospermum incisum*; C = 8), lead plant (C = 8), kitten tails (C = 8), purple prairie clover (C = 8), candle anemone (C = 8), Hill's thistle (C = 7), small yellow flax (C = 7), side-oats grama (C = 7), aromatic aster (*Aster oblongifolius*; C = 7), sky-blue aster (*Aster azureus*; C = 7), and lyre-leaved rock cress (C = 7).

Sedge meadow - Sedge meadows cover approximately 0.04% (Table 2-1) of the project corridor. One large sedge meadow (wetland site 103 in Table 5-1) is located just east of Yorktown Road (figure 7-1). The site contained fifty-one plant species, 98% of which were native. The dominant species was tussock sedge (*Carex stricta*). An additional eight species of sedge occurred within this wetland site. The site occurs on the Lena Muck, a hydric soil. The site is important because of the rarity of the community type within the corridor, its large size (7.02 acres), and its high concentration of species that do not tolerate habitat degradation. Because of these factors, wetland site 103 could be considered for the natural areas inventory as a high quality sedge meadow community. Species that have a coefficient of conservatism (C) value of 7 or above include, swamp saxifrage (*Saxifraga pensylvanica*) (C = 10), swamp betony (*Pedicularis lanceolata*) (C=9), Bebb's oval sedge (*Carex bebbii*) (C=8), inland sedge (*Carex interior*) (C=8), swamp aster (*Aster puniceus*) (C=7), marsh marigold (*Caltha palustris*) (C=7), prairie straw sedge (*Carex suberecta*) (C=7), and white turtlehead (*Chelone glabra*) (C=7). A complete species list and results from Floristic Quality Assessment are found in **Appendix 7-2.**

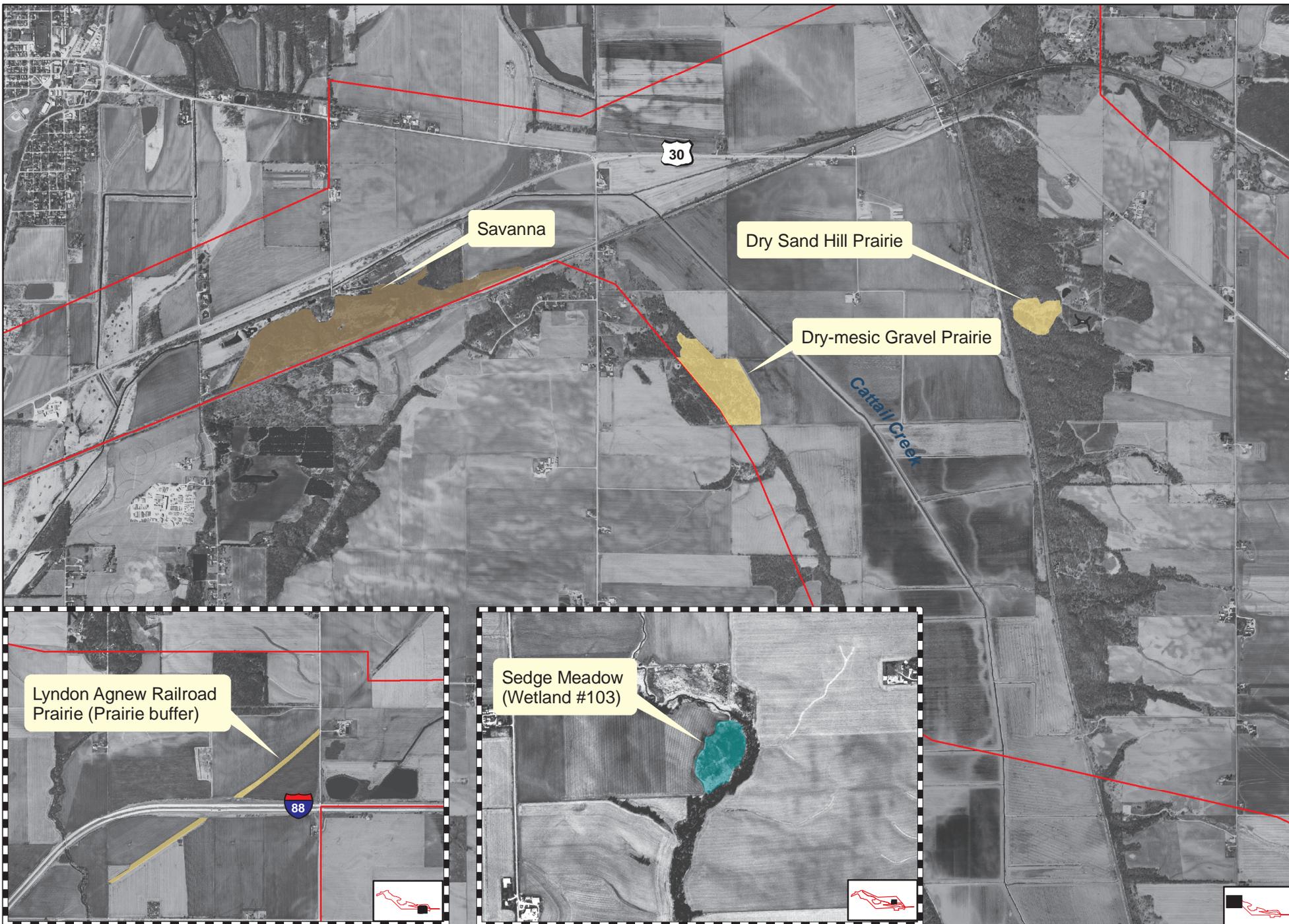


Figure 7-1. Ecologically Sensitive Areas, Natural Areas, Nature Preserves, and Heritage Landmarks within the US Route 30 corridor

Chapter 8 Invasive and Noxious Species Surveys

Although invasive and noxious species were found in the addendum corridor, no new species were discovered.

For more information on invasive and noxious species in both the original corridor and addendum, please consult Zylka et al (2008).

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Appendix 2-1

List of vascular plants known from US Route 30 corridor

Appendix 2-1. List of vascular plants known from US Route 30 corridor																		
Community types/cover types			Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	
			Dry-mesic upland	Dry-mesic upland sand	Dry sand	Dry sand hill	Dry-mesic gravel hill	Dry to dry-mesic sand	Dry-mesic to mesic (black soil)	Marsh	Scrubshrub/Wet Meadow	sedge meadow	Lake/pond/river	Forested wetland	CRP Prairie/Tree planting	Hayfield/Crop	Non-native grasslands	
Abutilon theophrasti	buttonweed										x				x		x	
Acer negundo	boxelder	x	x	x				x			x			x				
Acer saccharinum	silver maple		x											x			x	
Acer saccharum	sugar maple	x									x			x				
Achillea millefolium	common milfoil	x	x	x	x	x	x	x										
Acorus calamus	sweet flag										x	x	x					
Actaea pachypoda	doll's eyes	x	x															
Adiantum pedatum	maidenhair fern	x	x															
Agastache nepetoides	yellow giant hyssop	x	x	x				x										
Agrimonia gryposepala	tall agrimony		x															
Agrimonia parviflora	swamp agrimony										x							
Agrimonia pubescens	soft agrimony	x					x				x							

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Non-native grasslands
		Dry-mesic upland	Dry-mesic upland sand	Dry sand	Dry sand hill	Dry-mesic gravel hill	Dry-mesic to mesic (black soil)	Dry to dry-mesic sand	Marsh	Scrubshrub/Wet Meadow	sedge meadow	Lake/pond/river	Forested wetland	CRP Prairie/Tree planting	Hayfield/Crop				
<i>Corylus americana</i>	American filbert	x	x					x											
<i>Crataegus mollis</i>	downy hawthorn								x	x			x						
<i>Croton glandulosus septentrionalis</i>	croton			x				x											
<i>Cryptotaenia canadensis</i>	honestwort	x	x						x	x			x						
<i>Cuscuta compacta</i>	dodder								x			x	x						
<i>Cycloloma atriplicifolium</i>	winged pigweed			x				x											x
<i>Cyperus diandrus</i>	umbrella flat sedge								x			x							x
<i>Cyperus erythrorhizos</i>	red-rooted nut sedge								x	x	x	x							
<i>Cyperus esculentus</i>	field nut sedge								x	x	x	x							
<i>Cyperus filiculmis</i>	slender sand sedge			x				x											
<i>Cyperus grayioides</i>	galingale			x				x											
<i>Cyperus odoratus</i>	nut sedge											x							
<i>Cyperus rivularis</i>	nut sedge			x					x			x							
<i>Cyperus schweinitzii</i>	rough sand sedge			x				x											

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Non-native grasslands
		Dry-mesic upland	Dry-mesic upland sand	Dry sand	Dry sand hill	Dry-mesic gravel hill	Dry-mesic to mesic (black soil)	Dry to dry-mesic sand		Marsh	Scrubshrub/Wet Meadow	sedge meadow	Lake/pond/river	Forested wetland	CRP Prairie/Tree planting	Hayfield/Crop		
<i>Cyperus strigosus</i>	long-scaled nut sedge									x	x	x	x	x				
<i>Cystopteris protrusa</i>	fragile fern	x	x															
<i>Dactylis glomerata</i>	orchard grass										x	x		x	x	x		x
<i>Dalea candida</i>	white prairie clover				x	x												
<i>Dalea purpurea</i>	purple prairie clover				x	x												
<i>Datura stramonium</i>	jimsonweed															x	x	
<i>Daucus carota</i>	Queen Anne's lace					x					x			x	x	x		
<i>Dentaria laciniata</i>	toothwort	x	x															
<i>Descurainia pinnata</i>	tansy mustard			x				x										
<i>Desmodium canadense</i>	Canada tick trefoil			x			x	x										
<i>Desmodium glutinosum</i>	pointed tick trefoil	x																
<i>Desmodium illinoense</i>	Illinois tick trefoil					x	x											
<i>Dianthus armeria</i>	deptford pink																	x

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Non-native grasslands	
		Dry-mesic upland	Dry-mesic upland sand	Dry sand	Dry sand hill	Dry-mesic gravel hill	Dry-mesic to mesic (black soil)	Dry to dry-mesic sand	Marsh	Scrubshrub/Wet Meadow	sedge meadow	Lake/pond/river	Forested wetland	CRP Prairie/Tree planting	Hayfield/Crop			
Ellisia nyctelea	Aunt Lucy	x																x
Elymus canadensis	Canada wild rye			x			x	x						x				
Elymus villosus	silky wild rye	x																
Elymus virginicus	Virginia wild rye	x	x							x			x					
Equisetum arvense	common horsetail	x	x	x				x	x	x	x							
Equisetum fluviatile	horsetail								x									x
Equisetum hyemale	scouring rush				x				x									
Eragrostis pectinacea	small love grass									x								
Eragrostis spectabilis	tumblegrass			x				x										
Erigeron annuus	annual fleabane						x		x	x	x		x	x				
Erigeron philadelphicus	marsh fleabane	x								x			x					
Erigeron strigosus	fleabane				x	x		x										
Erythronium albidum	white adder's tongue	x																x
Eupatorium altissimum	tall boneset					x	x							x				

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Cultural	Cultural	Non-native grasslands		
																				Dry-mesic upland sand	Dry-mesic upland sand	Dry sand
	Penthorum sedoides										x											
	Phalaris arundinacea								x													
	Phleum pratense																					
	Phlox bifida																					
	Phlox divaricata																					
	Phryma leptostachya																					
	Phyla lanceolata																					
	Physalis heterophylla																					
	Physalis subglabrata																					
	Phytolacca americana																					
	Pilea pumila																					
	Pinus strobus																					
	Plantago lanceolata																					

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Cultural	Cultural	Cultural	Non-native grasslands		
																					Dry-mesic upland	Dry-mesic upland sand	Dry sand
Ranunculus recurvatus	buttercup	x																					
Ranunculus septentrionalis	swamp buttercup	x	x																				
Ratibida pinnata	yellow coneflower					x	x									x							
Rhus aromatica	aromatic sumac			x	x	x		x															x
Rhus glabra	smooth sumac			x	x			x	x														x
Ribes americanum	wild black current									x	x												
Ribes missouriense	Missouri gooseberry	x	x	x				x															
Robinia pseudoacacia	black locust	x	x		x					x													
Rorippa palustris	marsh yellow cress									x	x	x	x										
Rosa carolina	pasture rose			x	x			x															
Rosa multiflora	multiflora rose	x		x				x	x	x													
Rubus allegheniensis	common blackberry	x			x											x							
Rubus flagellaris	common dewberry		x	x				x															

Community types/cover types			Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Cultural	Cultural	Non-native grasslands
																					Hayfield/Crop
Tephrosia virginiana	goat's rue				x	x			x												
Teucrium canadense	germander		x					x		x					x						
Thalictrum dasycarpum	purple meadow rue							x		x	x	x									x
Thelypteris palustris	marsh fern									x	x										
Thlaspi arvense	field penny cress										x										
Tilia americana	American linden	x	x												x						
Toxicodendron radicans	poison ivy	x	x	x	x	x	x	x	x	x	x	x			x						
Tradescantia ohiensis	common spiderwort				x		x	x								x					x
Tragopogon dubius	sand goat's beard					x															x
Trichostema brachiatum	false pennyroyal				x																x
Tridens flavus	purpletop							x													x
Trifolium arvense	rabbit-foot clover																				x
Trifolium pratense	red clover										x	x		x	x	x					

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Cultural	Cultural	Non-native grasslands
																				Dry-mesic upland
Trifolium repens	white clover	x								x										
Trilium recurvatum	red trillium	x	x																	
Triodanis perfoliata	Venus's looking glass			x				x												
Triosteum aurantiacum	early horse gentian																			x
Triosteum perfoliatum	late horse gentian				x															
Triplasis purpurea	purple sandgrass			x				x												x
Typha angustifolia	narrow-leaved cattail								x	x	x	x								
Typha latifolia	broad-leaved cattail								x	x	x	x								
Ulmus americana	American elm	x	x							x										x
Ulmus pumila	Siberian elm					x														
Ulmus rubra	slippery elm	x	x																	
Urtica dioica	tall nettle								x	x	x	x	x	x						x

Community types/cover types		Forest	Forest	Prairie	Prairie	Prairie	Prairie	Savanna	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Wetlands	Cultural	Cultural	Cultural	Cultural	Non-native grasslands	
																			Dry-mesic upland	Dry-mesic upland sand
Vitis aestivalis	summer grape	x																		
Vitis riparia	riverbank grape	x	x							x										
Vitis vulpina	frost grape	x																		
Vulpia octoflora	six weeks fescue			x	x	x		x												
Xanthium strumarium	cocklebur		x							x	x		x							
Zanthoxylum americanum	prickly ash	x	x	x				x												
Zea mays	corn																			x

Appendix 2-2

Forest Overview US-30 Qualitative Summary

Appendix 2-2. Forest Overview US-30 Corridor

Forest Stand # (ha)	# Plots Sampled Corridor	Total Acres	# Tree Speices	Forest Type	Estimated Stand Age
1	16	40	14	Dry-mesic Upland	Old-second growth
2	4	10	11	Dry-mesic Upland Sand	Mix-planted and mature second growth
3	8	20	13	Dry-mesic Upland Sand	Submature to mature-second growth
4	4	10	10	Dry-mesic Upland	Mature second growth
5	16	50	14	Dry-mesic Upland Sand	Mature second growth
6	8	20	15	Dry-mesic Upland Sand	Submature to mature-second growth
7	5	13	12	Dry-mesic Upland	Submature to mature-second growth
8	5	12	16	Dry-mesic Upland	Young to submature growth
9	11	26	13	Dry-mesic Upland	Mature-second growth
10	6	14	10	Dry-mesic Upland	Submature to mature-second growth
11	9	22	15	Dry-mesic Upland	Young to old-second growth
12	15	41	17	Dry-mesic Upland	Mature second growth
13	5	11	14	Dry-mesic Upland	Submature to mature-second growth
Totals	112	289	31		

Comments including forest ground layer integrity

- 1 A former savanna grove, very open canopy with sparse sapling and shrub layers, moderately degraded; potential heavy deer browsing
- 2 Area was marked as a tree farm. We sampled the areas that appeared natural, however there was still several introduced species in the plots, highly degraded herbaceous layer
- 3 Degraded *Quercus velutina* (black oak) sand savanna it presently is being grazed by horses, moderately degraded ground layer
- 4 Forest near sand dunes on level ground. It had the highest density of *Juglans nigra* (black walnut) of all the forests sampled,
- 5 Highly degraded *Quercus velutina* (black oak) sand savanna, large oaks occur in the over story, highly degraded herbaceous layer several introduced and shade tolerant species dominate the under story
- 6 Highly degraded *Quercus velutina* (black oak) sand savanna, extensive RV trails, logging, and areas of dense shrubs, highly to moderately disturbed, population of butternut.
- 7 Some logging, firewood cutting ,moderate disturbance in herbaceous layer
- 8 Highly disturbed, currently under Timber Stand Improvement (TSI) forest management, including girdling of trees trails, mowing
- 9 Heavy shading by sugar maple, wildlife food plots, light disturbance,
- 10 Moderate disturbance some scattered large trees, highly disturbed herbaceous layer.
- 11 Currently under TSI forest management, some very large trees including black walnut; moderate disturbance, trails, mowing, girdling of trees
- 12 One of the more diverse forest stands in the corridor, several equestrian trails in area, population of butternut
- 13 Small forest, disturbed with two old home sites; some planted species

Appendix 2-3

Forest Overview US-30 Quantitative Summary

Appendix 2-3. Appendix 2-3. US-30 Individual Forest Quantitative Data

Forest 1

Species	Den/ha	BA m ² /ha	FREQ	IV 300	DEN/acre	BA Ft ² /acre
Celtis occidentalis	197.50	9.55	100.00	106.63	79.93	41.62
Tilia americana	42.50	4.16	75.00	41.08	17.20	18.11
Carya cordiformis	37.50	1.40	75.00	30.51	15.18	6.11
Ulmus rubra	20.00	3.03	50.00	25.98	8.09	13.20
Carya ovata	17.50	2.15	62.50	24.96	7.08	9.37
Ulmus americana	15.00	0.99	31.25	13.89	6.07	4.30
Quercus alba	12.50	2.41	18.75	15.37	5.06	10.51
Quercus rubra	8.75	3.09	12.50	15.31	3.54	13.46
Robinia pseudoacacia	6.25	1.32	12.50	8.72	2.53	5.76
Fraxinus americana	2.50	0.11	12.50	3.64	1.01	0.46
Quercus macrocarpa	2.50	0.79	12.50	5.93	1.01	3.45
Acer negundo	1.25	0.11	6.25	2.00	0.51	0.47
Juglans nigra	1.25	0.18	6.25	2.25	0.51	0.79
Quercus velutina	1.25	0.63	6.25	3.74	0.51	2.74
Total	366.25	29.92		300.00	148.22	130.35

Forest 2

Species	Den/ha	BA m ² /ha	FREQ	IV 300	DEN/acre	BA Ft ² /acre
Morus alba	125.00	9.51	100.00	77.85	50.59	41.42
Celtis occidentalis	85.00	2.73	100.00	45.62	34.40	11.89
Ulmus americana	60.00	1.93	100.00	37.78	24.28	8.42
Juglans nigra	45.00	5.00	75.00	35.22	18.21	21.77
Carya cordiformis	15.00	0.21	25.00	7.60	6.07	0.93
Gleditsia triacanthos	15.00	6.27	75.00	40.82	6.07	27.31
Catalpa speciosa	10.00	2.51	50.00	20.36	4.05	10.95
Prunus serotina	10.00	0.33	50.00	11.35	4.05	1.42
Ulmus rubra	10.00	0.83	50.00	13.41	4.05	3.60
Quercus velutina	5.00	0.05	25.00	5.00	2.02	0.21
Tilia americana	5.00	0.06	25.00	5.00	2.02	0.28
Total	385.00	29.43		300.00	155.81	128.19

Forest 3

Species	Den/ha	BA m ² /ha	FREQ	IV 300	DEN/acre	BA Ft ² /acre
Quercus velutina	152.50	14.34	100.00	116.48	61.72	62.45
Morus alba	92.50	3.63	87.50	55.56	37.43	15.82
Prunus serotina	35.00	1.27	75.00	28.56	14.16	5.53
Carya cordiformis	25.00	1.29	50.00	19.25	10.12	5.60
Quercus rubra	20.00	1.28	37.50	16.85	8.09	5.56
Maclura pomifera	17.50	0.62	37.50	13.18	7.08	2.69
Celtis occidentalis	15.00	0.32	25.00	9.94	6.07	1.40
Ulmus americana	10.00	0.38	12.50	4.93	4.05	1.68
Fraxinus americana	7.50	1.07	25.00	9.58	3.04	4.66
Ailanthus altissimus	5.00	0.04	12.50	3.65	2.02	0.18
Juniperus virginiana	5.00	0.08	25.00	6.37	2.02	0.34
Quercus macrocarpa	5.00	1.42	25.00	12.01	2.02	6.17
Catalpa speciosa	2.50	0.15	12.50	3.63	1.01	0.63
Total	392.50	25.87		300.00	158.84	112.70

Forest 4

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Juglans nigra	120.00	9.12	100.00	76.11	48.56	39.71
Quercus velutina	50.00	10.09	50.00	64.60	20.23	43.94
Carya cordiformis	70.00	1.83	100.00	36.08	28.33	7.98
Quercus macrocarpa	30.00	2.88	100.00	35.58	12.14	12.53
Celtis occidentalis	45.00	0.69	100.00	29.82	18.21	2.99
Prunus serotina	40.00	0.96	100.00	28.25	16.19	4.17
Quercus alba	5.00	1.82	25.00	13.02	2.02	7.91
Morus alba	5.00	0.17	25.00	5.93	2.02	0.76
Ulmus rubra	5.00	0.06	25.00	5.42	2.02	0.24
Acer negundo	5.00	0.06	25.00	5.18	2.02	0.27
Total	375.00	27.66		300.00	151.76	120.50

Forest 5

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Prunus serotina	62.50	4.80	93.75	48.60	25.29	20.91
Celtis occidentalis	107.50	2.07	87.50	47.41	43.50	9.02
Quercus velutina	57.50	6.38	56.25	38.43	23.27	27.77
Morus alba	56.25	3.44	56.25	36.02	22.76	14.99
Quercus macrocarpa	18.75	2.91	62.50	26.25	7.59	12.70
Ulmus americana	33.75	1.26	62.50	23.25	13.66	5.50
Ulmus rubra	17.50	3.18	37.50	22.81	7.08	13.83
Robinia pseudoacacia	31.25	2.11	25.00	19.75	12.65	9.20
Carya cordiformis	22.50	1.04	50.00	17.68	9.11	4.54
Acer negundo	8.75	0.34	31.25	8.59	3.54	1.49
Quercus alba	2.50	0.17	12.50	3.32	1.01	0.73
Tilia americana	5.00	0.24	6.25	3.17	2.02	1.07
Carya ovata	2.50	0.05	12.50	2.87	1.01	0.22
Quercus rubra	2.50	0.06	6.25	1.85	1.01	0.25
Total	428.75	28.05		300.00	173.51	122.21

Forest 6

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Quercus velutina	160.00	10.87	87.50	94.47	64.75	47.37
Juglans nigra	90.00	6.67	50.00	55.38	36.42	29.07
Carya cordiformis	87.50	2.59	75.00	45.63	35.41	11.26
Celtis occidentalis	50.00	1.30	37.50	24.17	20.23	5.67
Prunus serotina	27.50	1.24	37.50	19.20	11.13	5.41
Tilia americana	35.00	1.55	12.50	16.02	14.16	6.73
Ulmus rubra	2.50	1.00	12.50	7.15	1.01	4.34
Ulmus americana	5.00	0.05	25.00	7.14	2.02	0.24
Acer saccharinum	2.50	0.69	12.50	6.01	1.01	3.00
Quercus alba	2.50	0.58	12.50	5.62	1.01	2.54
Quercus rubra	2.50	0.19	12.50	4.19	1.01	0.85
Acer negundo	2.50	0.14	12.50	3.97	1.01	0.60
Ostrya virginiana	2.50	0.09	12.50	3.80	1.01	0.39
Maclura pomifera	2.50	0.05	12.50	3.66	1.01	0.23
Catalpa speciosa	2.50	0.03	12.50	3.58	1.01	0.14
Total	475.00	27.05		300.00	192.23	117.83

Forest Site 7

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Ostrya virginiana	112.00	2.44	60.00	52.34	45.33	10.65
Acer saccharum	88.00	2.78	40.00	43.73	35.61	12.12
Carya cordiformis	40.00	1.58	100.00	35.40	16.19	6.90
Carya ovata	32.00	2.94	60.00	32.33	12.95	12.81
Fraxinus americana	20.00	2.15	80.00	28.93	8.09	9.37
Prunus serotina	20.00	1.79	40.00	20.42	8.09	7.80
Quercus rubra	12.00	1.79	40.00	18.19	4.86	7.79
Ulmus americana	12.00	0.59	40.00	12.87	4.86	2.58
Juglans nigra	8.00	2.64	40.00	20.88	3.24	11.51
Ulmus rubra	8.00	1.44	40.00	15.51	3.24	6.25
Quercus velutina	4.00	1.56	20.00	11.51	1.62	6.80
Rhamnus cathartica	4.00	0.75	20.00	7.90	1.62	3.27
Totals	360.00	22.46		300.00	145.69	97.85

Forest 8

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Carya cordiformis	100.00	2.80	40.00	60.20	40.47	12.21
Prunus serotina	92.00	4.63	80.00	78.17	37.23	20.18
Ulmus americana	24.00	0.89	60.00	26.04	9.71	3.89
Ostrya virginiana	16.00	0.42	20.00	12.18	6.48	1.84
Celtis occidentalis	12.00	0.72	40.00	16.92	4.86	3.14
Fraxinus americana	8.00	0.63	20.00	10.97	3.24	2.75
Morus alba	8.00	0.10	40.00	11.30	3.24	0.42
Quercus rubra	8.00	0.76	20.00	11.88	3.24	3.32
Quercus velutina	8.00	1.35	40.00	19.96	3.24	5.90
Acer negundo	4.00	0.29	20.00	7.33	1.62	1.27
Juglans nigra	4.00	0.13	20.00	6.22	1.62	0.57
Lonicera maackii	4.00	0.37	20.00	7.85	1.62	1.60
Ptelea trifoliata	4.00	0.04	20.00	5.56	1.62	0.15
Rhamnus cathartica	4.00	0.22	20.00	6.84	1.62	0.96
Tilia americana	4.00	1.10	20.00	12.93	1.62	4.81
Ulmus rubra	4.00	0.05	20.00	5.66	1.62	0.22
Totals	304.00	14.52		300.00	123.03	63.24

Forest 9

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Acer saccharum	61.54	4.36	81.82	60.03	24.90	18.98
Tilia americana	39.82	5.83	36.36	46.19	16.11	25.38
Quercus rubra	27.15	7.99	54.55	52.49	10.99	34.79
Ostrya virginiana	23.53	1.15	45.45	24.13	9.52	5.00
Ulmus americana	16.29	0.69	36.36	17.37	6.59	3.00
Fraxinus americana	14.48	1.02	27.27	15.85	5.86	4.46
Carya cordiformis	12.67	0.71	45.45	17.84	5.13	3.08
Prunus serotina	12.67	1.70	45.45	21.44	5.13	7.39
Quercus alba	10.86	3.12	36.36	23.88	4.39	13.61
Juglans nigra	5.43	0.56	18.18	8.31	2.20	2.45
Celtis occidentalis	3.62	0.25	18.18	6.38	1.46	1.08
Gleditsia triacanthos	1.81	0.04	9.09	2.88	0.73	0.16

Quercus velutina	1.81	0.13	9.09	3.21	0.73	0.56
Totals	231.68	27.53		300.00	93.76	119.94

Forest 10

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Tilia americana	83.25	6.16	100.00	70.55	33.69	26.84
Celtis occidentalis	53.28	2.22	100.00	44.25	21.56	9.68
Carya cordiformis	39.96	1.19	66.67	29.79	16.17	5.17
Prunus serotina	36.63	4.24	100.00	46.91	14.82	18.45
Acer saccharum	26.64	0.62	33.33	17.26	10.78	2.71
Fraxinus americana	26.64	5.44	83.33	45.65	10.78	23.72
Ulmus americana	13.32	0.44	33.33	12.00	5.39	1.90
Quercus rubra	9.99	3.55	33.33	23.67	4.04	15.46
Acer negundo	3.33	0.26	16.67	5.04	1.35	1.12
Ulmus rubra	3.33	0.22	16.67	4.88	1.35	0.96
Totals	296.37	24.33		300.00	119.94	106.00

Forest 11

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Juglans nigra	59.94	5.49	88.89	60.00	24.26	23.91
Acer saccharum	39.96	1.44	22.22	22.55	16.17	6.28
Celtis occidentalis	39.96	2.30	66.67	36.08	16.17	10.02
Acer negundo	33.30	1.22	22.22	19.72	13.48	5.33
Ulmus americana	31.08	1.41	44.44	24.84	12.58	6.15
Ostrya virginiana	19.98	0.25	11.11	9.35	8.09	1.10
Fraxinus americana	17.76	0.44	22.22	11.99	7.19	1.94
Carya cordiformis	15.54	0.56	22.22	11.80	6.29	2.42
Quercus alba	15.54	7.72	33.33	43.80	6.29	33.65
Quercus rubra	11.10	1.06	22.22	12.58	4.49	4.61
Prunus serotina	6.66	0.37	22.22	8.46	2.70	1.61
Quercus velutina	4.44	1.45	22.22	12.24	1.80	6.30
Tilia americana	4.44	0.33	22.22	7.67	1.80	1.46
Ulmus rubra	4.44	0.22	11.11	4.69	1.80	0.95
Fraxinus pennsylvanica	2.22	0.03	11.11	3.28	0.90	0.14
Totals	306.36	24.30		289.03	123.98	105.86

Forest 12

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Ulmus americana	61.18	2.89	93.33	55.74	24.76	12.57
Juglans nigra	37.24	3.41	46.67	39.93	15.07	14.87
Prunus serotina	30.59	1.12	46.67	26.32	12.38	4.88
Quercus macrocarpa	19.95	3.08	60.00	34.00	8.07	13.40
Carya ovata	15.96	1.44	53.33	23.34	6.46	6.28
Celtis occidentalis	15.96	0.79	33.33	16.41	6.46	3.43
Quercus velutina	13.30	4.44	33.33	32.82	5.38	19.33
Ostrya virginiana	10.64	0.25	13.33	7.92	4.31	1.07
Quercus rubra	9.31	0.41	26.67	10.72	3.77	1.80
Morus alba	7.98	0.16	26.67	8.98	3.23	0.69
Populus grandidentata	7.98	0.35	6.67	6.10	3.23	1.52
Ulmus rubra	7.98	0.89	26.67	12.46	3.23	3.86
Populus deltoides	5.32	1.08	20.00	11.09	2.15	4.72

Quercus alba	3.99	0.12	13.33	4.70	1.61	0.53
Carya cordiformis	2.66	0.39	13.33	5.44	1.08	1.69
Acer negundo	1.33	0.08	6.67	2.17	0.54	0.34
Maclura pomifera	1.33	0.01	6.67	1.85	0.54	0.05
Totals	252.70	20.90		300.00	102.27	91.03

Forest 13

Species	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Tilia americana	33.30	4.75	33.33	44.04	13.48	20.71
Celtis occidentalis	26.64	0.86	50.00	27.25	10.78	3.73
Juglans nigra	26.64	3.36	66.67	40.86	10.78	14.62
Catalpa speciosa	23.31	5.12	50.00	43.36	9.43	22.32
Carya ovata	13.32	2.02	66.67	28.10	5.39	8.78
Morus alba	9.99	0.35	50.00	16.20	4.04	1.53
Pinus strobus	9.99	1.73	16.67	15.73	4.04	7.53
Quercus macrocarpa	9.99	2.12	33.33	20.48	4.04	9.22
Ulmus americana	9.99	0.43	50.00	16.53	4.04	1.87
Ulmus rubra	9.99	0.54	50.00	17.00	4.04	2.36
Fraxinus americana	3.33	0.55	16.67	7.20	1.35	2.38
Gleditsia triacanthos	3.33	0.75	16.67	8.07	1.35	3.29
Prunus serotina	3.33	0.41	16.67	6.64	1.35	1.80
Quercus velutina	3.33	0.86	16.67	8.54	1.35	3.77
Totals	186.48	23.85		300.00	75.47	103.89

Appendix 2-3 Forest Overview US-30 Quantitative Summary

Forest Unit	Species	Density	Trees/ha	Basal Area		Avg Basal /Stem	
	Richness	Trees/acre		ft ² /acre	m ² /ha	ft ²	m ²
1	14	148.22	366.25	130.35	29.92	0.88	0.08
2	11	155.81	385.00	128.19	29.43	0.82	0.08
3	13	158.84	392.50	112.70	25.87	0.71	0.07
4	10	151.76	375.00	120.50	27.66	0.79	0.07
5	14	173.51	428.75	122.21	28.05	0.70	0.07
6	15	192.23	475.00	117.83	27.05	0.61	0.06
7	12	145.69	360.00	97.85	22.46	0.67	0.06
8	16	123.03	304.00	63.24	14.52	0.51	0.05
9	13	93.76	231.68	119.94	27.53	1.27	0.11
10	10	119.94	296.37	106.00	24.33	0.88	0.08
11	15	123.98	306.36	105.86	24.30	0.85	0.08
12	17	102.27	252.70	91.03	20.90	0.89	0.08
13	14	75.47	186.48	103.89	23.85	1.27	0.12
Pooled Data (112 Plots)	31	135.73	335.39	109.19	25.06	0.80	0.80

Averaged Forest Data from original US-30 Corridor: Forests 1-6

Forest Averages	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
Species	Avg	Avg	Avg	Avg	Avg	Avg
Quercus velutina	71.04	7.06	54.17	53.79	28.75	30.75
Celtis occidentalis	83.33	2.78	75.00	43.93	33.72	12.10
Morus alba	46.46	2.79	44.79	29.23	18.80	12.17
Juglans nigra	42.71	3.49	38.54	28.16	17.28	15.22
Carya cordiformis	42.92	1.39	62.50	26.12	17.37	6.07
Prunus serotina	29.17	1.43	59.38	22.66	11.80	6.24
Ulmus americana	20.63	0.77	38.54	14.50	8.35	3.36
Quercus macrocarpa	9.38	1.33	33.33	13.29	3.79	5.81
Ulmus rubra	9.17	1.35	29.17	12.46	3.71	5.87
Tilia americana	14.58	1.00	19.79	10.88	5.90	4.36
Gleditsia triacanthos	2.50	1.04	12.50	6.80	1.01	4.55
Quercus rubra	5.63	0.77	11.46	6.37	2.28	3.35
Quercus alba	3.75	0.83	11.46	6.22	1.52	3.62
Robinia pseudoacacia	6.25	0.57	6.25	4.75	2.53	2.49
Carya ovata	3.33	0.37	12.50	4.64	1.35	1.60
Catalpa speciosa	2.50	0.45	12.50	4.60	1.01	1.95
Acer negundo	2.92	0.11	12.50	3.29	1.18	0.47
Maclura pomifera	3.33	0.11	8.33	2.81	1.35	0.49
Fraxinus americana	1.67	0.20	6.25	2.20	0.67	0.85
Juniperus virginiana	0.83	0.01	4.17	1.06	0.34	0.06
Acer saccharinum	0.42	0.11	2.08	1.00	0.17	0.50
Ostrya virginiana	0.42	0.01	2.08	0.63	0.17	0.07
Ailanthus altissimus	0.83	0.01	2.08	0.61	0.34	0.03
Total	403.75	28.00		300.00	163.40	121.96

Averaged Forest Data for Addendum 1 US-30 Corridor: Forests 7 - 13.

Forest Averages	Den/ha	BA m2/ha	FREQ	IV 300	DEN/acre	BA Ft2/acre
SITE	Avg	Avg	Avg	Avg	Avg	Avg
Prunus serotina	28.84	2.04	50.14	29.80	11.67	8.87
Tilia americana	23.54	2.60	30.27	25.93	9.53	11.31

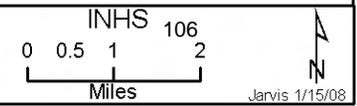
Juglans nigra	20.18	2.23	40.06	25.48	8.17	9.70
Ulmus americana	23.98	1.05	51.07	23.79	9.70	4.56
Carya cordiformis	30.12	1.03	41.10	23.00	12.19	4.49
Celtis occidentalis	21.64	1.02	44.03	21.25	8.76	4.44
Acer saccharum	30.88	1.31	25.34	20.71	12.50	5.73
Quercus rubra	11.08	2.22	28.11	18.56	4.48	9.68
Fraxinus americana	12.89	1.46	35.64	17.32	5.22	6.37
Ostrya virginiana	26.02	0.65	21.41	15.23	10.53	2.81
Quercus velutina	4.98	1.40	20.19	12.63	2.02	6.09
Carya ovata	8.75	0.91	25.71	11.97	3.54	3.98
Quercus alba	4.34	1.57	11.86	10.42	1.76	6.83
Ulmus rubra	5.39	0.48	23.49	8.62	2.18	2.08
Quercus macrocarpa	4.28	0.74	13.33	7.78	1.73	3.23
Catalpa speciosa	3.33	0.73	7.14	6.19	1.35	3.19
Morus alba	3.71	0.09	16.67	5.21	1.50	0.38
Acer negundo	5.99	0.26	9.37	5.06	2.43	1.15
Pinus strobus	1.43	0.25	2.38	2.25	0.58	1.08
Rhamnus cathartica	1.14	0.14	5.71	2.11	0.46	0.60
Populus deltoides	0.76	0.15	2.86	1.58	0.31	0.67
Gleditsia triacanthos	0.73	0.11	3.68	1.56	0.30	0.49
Lonicera maackii	0.57	0.05	2.86	1.12	0.23	0.23
Populus grandidentata	1.14	0.05	0.95	0.87	0.46	0.22
Ptelea trifoliata	0.57	0.01	2.86	0.79	0.23	0.02
Fraxinus pennsylvanica	0.32	0.00	1.59	0.48	0.13	0.02
Maclura pomifera	0.19	0.00	0.95	0.26	0.08	0.01
Totals	276.80	22.56		300.00	112.02	98.26

Appendix 2-4
Land Cover of US 30 Corridor and Addendum 1



- | | | | | | | |
|-------------------------|-------------------|----------------------|---------------------|------------------|---------------------|-------------------|
| Cropland | CRP Tree Planting | Tree Farm | Grassland (Prairie) | Tree Savanna | Shrub-scrub Wetland | Stream |
| Urban and Built-up Land | Mining Area | Pasture and Hayland | Forest | Sedge Meadow | Marsh | Pond |
| CRP Grassland | Forbland | Non-Native Grassland | Shrubland | Forested Wetland | Wet Meadow | Lacustrine (Lake) |
| | | | | | | Riverine (River) |

Appendix 2-4 Land Cover of US 30 Corridor and Addendum 1



Appendix 3-1

**Bird species encountered during the 2008 censuses of the US 30 project
corridor addendum (Whiteside County)**

Birds encountered in the US 30 project corridor addendum during the 2008 censuses. *Breeding Status:* if yes, 1 = young or nests encountered, 2 = territorial birds encountered, 3 = both males and females encountered in breeding season, 4 = birds seen that are likely to breed in the area. ***Migratory/Residency Status:*** NM = North American migrant, NTM = Neotropical migrant, N = non-migratory, R = resident. ***Habitat:*** FF = farm fields, St = streams, S = shrub, G = grassland, F = forest/woodlot, U = urban and suburban. ***Special conservation designations:*** IL T = Illinois threatened, IL E = Illinois endangered, ILCP = *The Illinois Wildlife Action Plan* <http://www.dnr.state.il.us/ORC/WildlifeResources/theplan/birds.asp> conservation priority species, WL = *The American Bird Conservancy* <http://www.abcbirds.org/abcprograms/science/watchlist/index.html> Watch List species, PF = *The Partners in Flight* species of special concern <http://www.rmbo.org/pif/downloads/downloads.html>. G = game species.

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Anatidae						
Canada Goose ^G	Both	Yes-1	W,G	FF,S	NM/B	x
Mallard ^G	Both	Yes-1	W,G	FF,St,S	NM/B	x
Phasianidae						
Ring-necked Pheasant ^G	Both	Yes-3	G,S	S,G	R/B	x
Ardeidae						
Great Blue Heron	Both	Yes-4	W,St	St,F	NM/B	x
Cathartidae						
Turkey Vulture	Both	Yes-4	F	FF,S,G,U	NM/B	x
Accipitridae						
Osprey	Driving	No	W,L,R	FF	NTM/B	IL En, ILCP
Northern Harrier	Driving	No	G	FF	NM/NB	IL En, ILCP
Cooper's Hawk		Yes-4	F,U	FF,S,F	NM/B	x
Red-tailed Hawk	Both	Yes-4	SV,G,S	FF,S,G,F,U,	NM/B	x
Falconidae						
American Kestrel	Both	Yes-3	G,S	FF,G	NM/B	x
Merlin	Driving	No	S	FF	NM/NB	x
Charadriidae						
Killdeer	Both	No	G,S	FF,S,G,F	NM/B	x

Appendix 3-1 continued

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Laridae						
Ring-billed Gull	Driving	No	W, FF	FF	NM/B	x
Columbidae						
Rock Pigeon	Both	Yes-4	S, U	FF,S,G,F,U	R/B	x
Mourning Dove ⁶	Both	Yes-4	S,U	St,S,G,F,U	R/B	x
Cuculidae						
Yellow-billed Cuckoo	Point	Yes-2	F	F	NTM/B	ILCP, PF
Caprimulgidae						
Common Nighthawk	Driving	Yes-4	S,U	U	NTM/B	x
Apodidae						
Chimney Swift	Driving	Yes-4	F,U	U	NTM/B	ILCP, PF
Trochilidae						
Ruby-throated Hummingbird	Both	Yes-4	F,S	S,F,U	NTM/B	x
Picidae						
Red-bellied Woodpecker	Both	Yes-1	F	F,U	R/B	x
Yellow-bellied Sapsucker	Point	No	F	F	NM/NB	x
Downy Woodpecker	Both	Yes-3	F,S	G,F,U,	R/B	x
Northern Flicker	Both	Yes-3	F,S	FF,S,G,F,	NM/B	ILCP, PF
Tyrannidae						
Eastern Wood-Pewee	Both	Yes-2	F	F,U	NTM/B	x
Least Flycatcher	Driving	No	S	St	NTM/NB	x
Eastern Phoebe	Both	Yes-2	S	St,S,F,U	NM/B	x
Great Crested Flycatcher	Point	Yes-2	F	F	NTM/B	PF
Eastern Kingbird	Both	Yes-2	S	S,G	NTM/B	PF

Appendix 3-1 continued

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Vireonidae						
White-eyed Vireo	Point	Yes-2	S	S,G,F	NM/B	x
Yellow-throated Vireo	Point	Yes-2	F	F	NTM/B	x
Blue-headed Vireo	Point	No	F	F	NM/B	x
Warbling Vireo	Both	Yes-2	S	S,F	NTM/B	x
Red-eyed Vireo	Point	Yes-2	F	F	NTM/B	x
Corvidae						
Blue Jay	Both	Yes-3	S,F	S,F,U	NM/B	x
American Crow ^G	Both	Yes-4	S,F	FF,S,G,F,U	NM/B	x
Alaudidae						
Horned Lark	Both	Yes-3	G,FF	FF,G	NM/B	x
Hirundinidae						
Tree Swallow	Both	Yes-4	W,G	St,G	NM/B	x
Northern Rough-winged Swallow	Point	No	S,FF	G	NTM/B	x
Barn Swallow	Both	Yes-4	S,FF	FF,S,G,U	R/B	x
Paridae						
Black-capped Chickadee	Point	Yes-4	F	S,F,G	R/B	x
Tufted Titmouse	Point	Yes-2	F	F	R/B	x
Sittidae						
White-breasted Nuthatch	Both	Yes-3	F	F,U	R/B	x
Certhiidae						
Brown Creeper	Point	No	F	F	NM/B	ILCP
Troglodytidae						
Carolina Wren	Both	Yes-4	F	F,U	R/B	x
House Wren	Both	Yes-2	F,S	F,U	NTM/B	x

Appendix 3-1 continued

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Regulidae						
Golden-crowned Kinglet	Point	No	F,S	S,F	NM/NB	x
Ruby-crowned Kinglet	Both	No	F,S	S	NM/NB	x
Sylviidae						
Blue-gray Gnatcatcher	Point	Yes-2	F	S,F	NTM/B	x
Turdidae						
Eastern Bluebird	Both	Yes-1	S	FF,S,F,G	R/B	x
Swainson's Thrush	Point	No	F	FF,F,U	NTM/NB	x
Wood Thrush	Point	Yes-4	F	F	NTM/B	ILCP, PF
American Robin	Both	Yes-1	S,F,U	S,G,F,U	NM/B	x
Mimidae						
Gray Catbird	Both	Yes-1	S,F	S,F,U	NTM/B	x
Brown Thrasher	Both	Yes-2	S	U,G,S	NM/B	ILCP, PF
Sturnidae						
European Starling	Both	Yes-2	F,S,U	FF,S,G,F,U	NM/B	x
Bombycillidae						
Cedar Waxwing	Driving	Yes-4	F	S	NM/B	x
Parulidae						
Tennessee Warbler	Driving	No	S,F	U	NTM/NB	x
Orange-crowned Warbler	Point	No	S,F	S	NM/NB	x
Nashville Warbler	Both	No	S,F	St,S,F	NTM/NB	x
Northern Parula	Point	No	F	F	NTM/B	x
Yellow Warbler	Point	Yes	S	S,G	NTM/B	x
Yellow-rumped Warbler	Point	No	S,F	S,F	NTM/NB	x
Palm Warbler	Point	No	G,S,F	S,G	NTM/B	x
Blackpoll Warbler	Point	No	F	F	NTM/NB	x

Appendix 3-1 continued

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Parulidae						
American Redstart	Point	No	F	F	NTM/B	x
Ovenbird	Point	No	F	F	NTM/B	ILCP
Common Yellowthroat	Point	Yes-3	W,G	S,G	NTM/B	x
Thraupidae						
Scarlet Tanager	Point	Yes-4	F	F	NM/B	x
Emberizidae						
Eastern Towhee	Both	Yes-2	F	F	NM/B	x
Chipping Sparrow	Driving	Yes-2	S,U	U	NM/B	x
Field Sparrow	Point	Yes-1	G	G	NM/B	ILCP, PF
Vesper Sparrow	Driving	Yes-2	G,FF	FF	NM/B	x
Song Sparrow	Both	Yes-3	S,F,U	S,G,F,U	NM/B	x
Lincoln's Sparrow	Point	No	S	G	NM/NB	x
Swamp Sparrow	Driving	No	W,G	St	NM/B	x
White-throated Sparrow	Point	No	F,S	S,G,F	NM/B	x
White-crowned Sparrow	Both	No	G,S	F,G,U	NM/NB	x
Cardinalidae						
Northern Cardinal	Both	Yes-2	S,F,U	St,S,F,U	R/B	x
Rose-breasted Grosbeak	Point	Yes-2	F	S,F	NTM/B	x
Indigo Bunting	Both	Yes-2	S,F,U	St,S,F,G	NTM/B	x
Dickcissel	Driving	Yes-2	G	G	NTM/B	ILCP, PF
Icteridae						
Red-winged Blackbird	Both	Yes-2	G,S,FF	FF,St,S,G,F	NM/B	x
Eastern Meadowlark	Both	Yes-2	G,FF	FF,S,G	NM/B	PF
Common Grackle	Both	Yes-2	F	FF,S,F,U	NM/B	x
Brown-headed Cowbird	Both	Yes-3	F,G	FF,U,F	NM/B	x
Baltimore Oriole	Both	Yes-2	F,S	S,F,U	NTM/B	PF

Appendix 3-1 concluded

Family/Species	Census	Breeds in Study Area?	Preferred Breeding Habitat	Habitat of Encounter(s)	Migratory / Residency Status	Special Designation
Fringillidae						
House Finch	Both	Yes-3	U	S,U	R/B	x
American Goldfinch	Both	Yes-3	G,S	S, G,F,U	R/B	x
Passeridae						
House Sparrow	Both	Yes-2	U	FF,S,U	R/B	x

Appendix 3-2

Index of reptile and amphibian observation sites

Sites surveyed in 2008 for amphibians and reptiles in the RT 30 corridor addendum.

<u>Site #</u>	<u>Location</u>	<u>Site Description</u>	<u>Dates</u>
Surveyed			
TS 18	8.8 km E of Fulton	Forest, pasture, streams	5/22/2008
TS 19	8.9 km E of Fulton	Road through agriculture	8/29/2008
TS 20	1.0 km NNW of Morrison	Road over creek	8/29/2008
TS 21	1.9 km N of Morrison	Wooded Residential	8/29/2008
TS 22	2 km ESE of Morrison	Road	8/28/2008
AQ 22	1.7 km N of Morrison	Forested stream	5/23/2008
AQ 23	9.2 km E Morrison	Fen	8/28/2008; 9/5/2008
AQ 24	2.5 km NNE of Morrison	Seep	9/5/2008

Appendix 3-3

Amphibian and reptile survey results by observation site

Amphibian and reptile species observed in 2008 during surveys of the RT 30 corridor addendum.

Site #	Man Hours	UNF	AT	GCF	GF	NLF	ST	RES	DS
TS 18	3.03	0	0	1	0	0	0	0	1
TS 19	INC	0	0	0	0	0	0	0	1
TS 20	INC	0	1	0	0	0	0	0	0
TS 21	INC	0	1	0	0	0	0	0	0
TS 22	INC	0	0	0	0	0	0	1	0
AQ 22	0.9	0	0	0	0	0	0	0	0
AQ 23	INC	0	1	0	0	25-30	1	0	0
AQ 24	2.8	3	10	0	2	7	0	0	0

INC= incidental encounter; UNF = unidentified frog; AT = American Toad; GCF = Grey/Cope's Treefrog; GF = Green Frog; NLF = Northern Leopard Frog; CST = Snapping Turtle; RES = Red Eared Slider; DS = Dekay's Snake

Appendix 3-4

Bird census areas of US 30 project corridor addendum (Whiteside County)

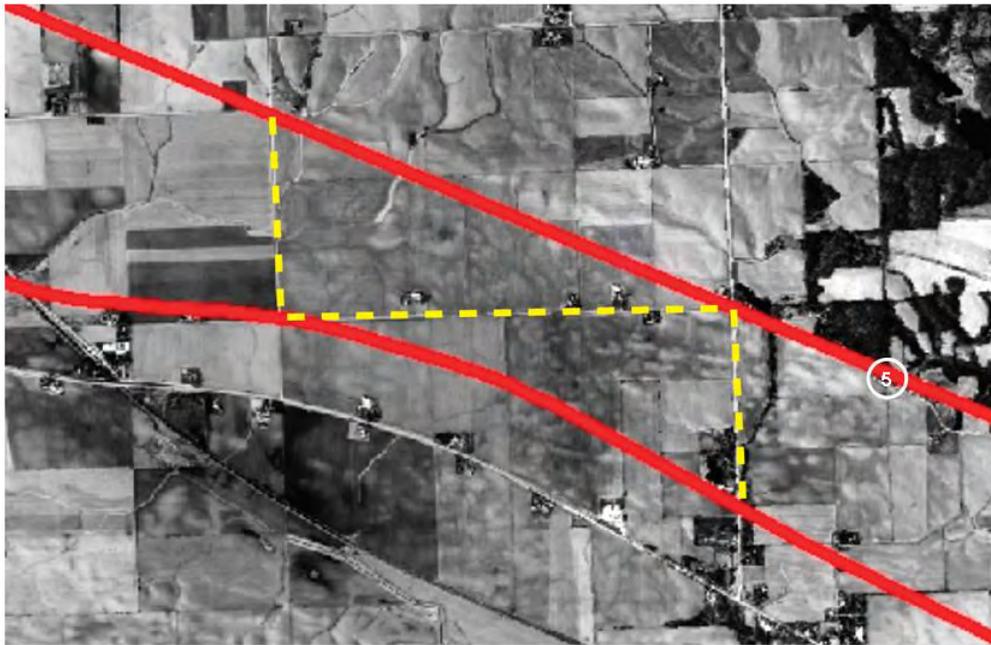


Figure 2. Census areas 5 and driving survey route. Red line represents the extent of the study area. Dashed yellow line depicts the driving census route.

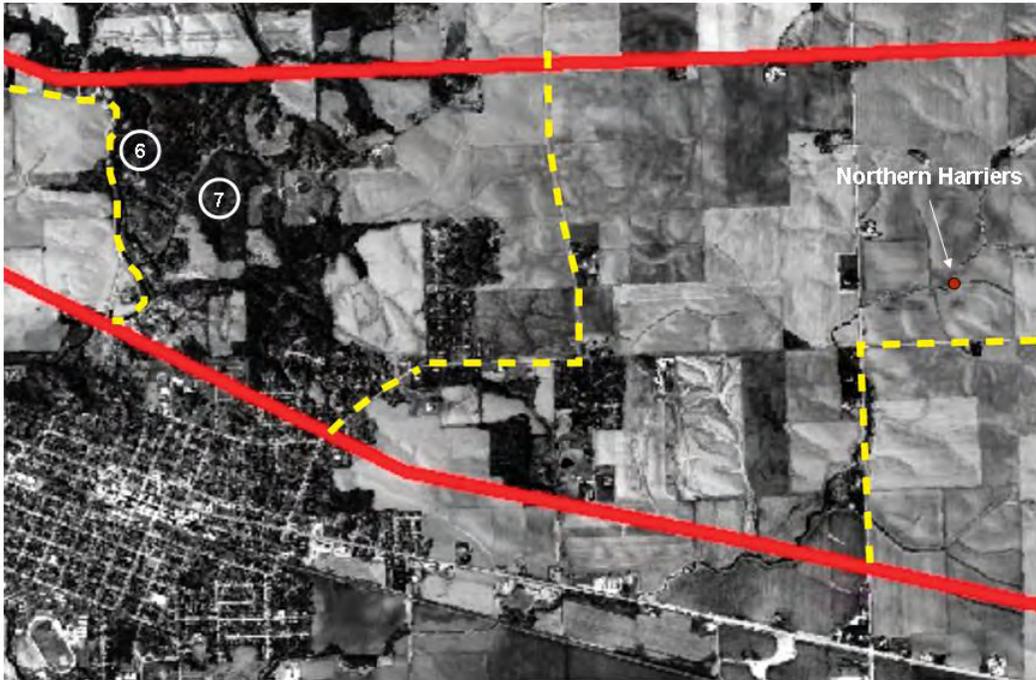


Figure 3. Census areas 6 & 7 and driving survey route. Red line represents the extent of the study area. Dashed yellow line depicts the driving census route.

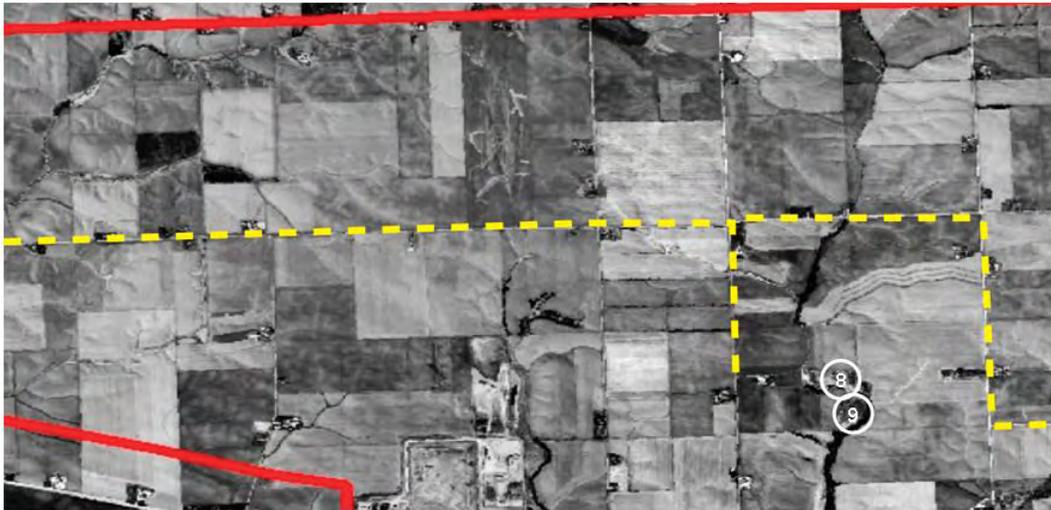


Figure 4. Census areas 8 & 9 and driving survey route. Red line represents the extent of the study area. Dashed yellow line depicts the driving census route.

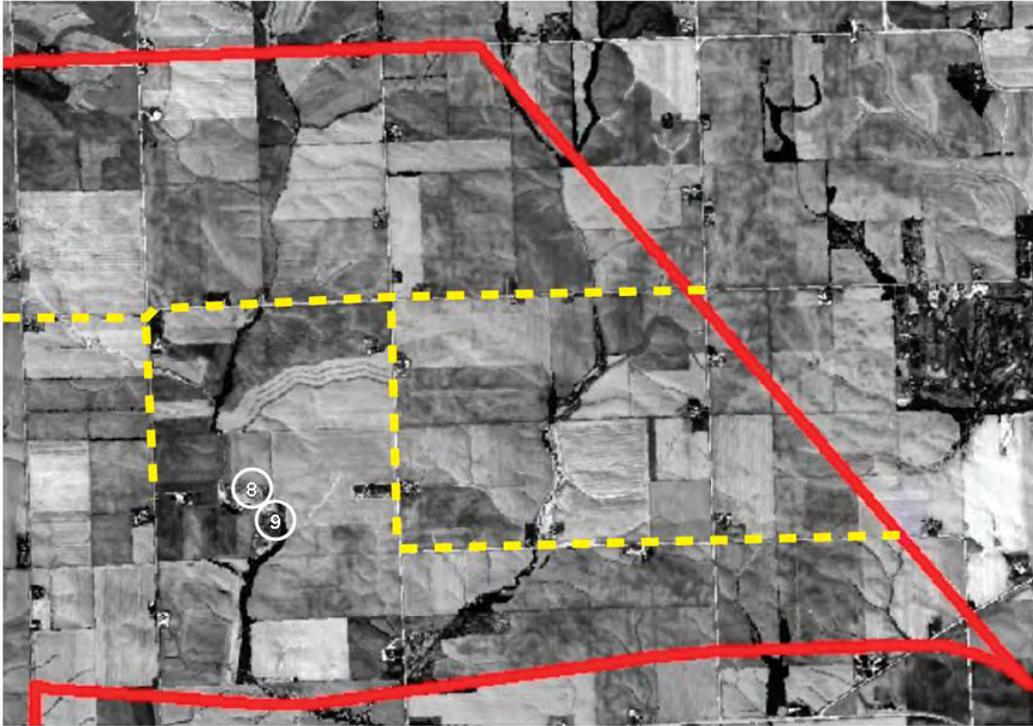


Figure 5. Census areas 8 & 9 and driving survey route. Red line represents the extent of the study area. Dashed yellow line depicts the driving c

APPENDIX 3-5

**Point count results and driving census results US 30 project corridor
addendum; spring migration 2008**

Appendix 3-5: Table 1. Census results US 30 project corridor addendum: spring migration 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Migration and Breeding Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant.

Family/Species	Breeding/ Migration status	Special Designation	Census areas									Total point counts	Driving census	Total all censuses	
			1	2	3	4	5	6	7	8	9				
Anatidae															
Canada Goose	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	43	43
Mallard	NM/B	x	2	0	0	0	0	0	0	0	0	0	2	3	5
Phasianidae															
Ring-necked Pheasant	R/B	x	1	0	0	0	0	0	0	0	1	0	2	0	2
Ardeidae															
Great Blue Heron	NM/B	x	0	0	0	0	0	1	0	0	0	0	1	2	3
Cathartidae															
Turkey Vulture	NM/B	x	0	0	0	3	2	0	0	2	4	0	11	8	19
Accipitridae															
Osprey	NTM/B	IL En, ILCP	0	0	0	0	0	0	0	0	0	0	0	1	1
Cooper's Hawk	NM/B	x	0	0	0	1	0	0	1	0	0	0	2	1	3
Red-tailed Hawk	NM/B	x	3	0	1	0	0	0	0	1	0	0	5	5	10
Falconidae															
American Kestrel	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	1	1
Merlin	NM/NB	x	0	0	0	0	0	0	0	0	0	0	0	1	1
Charadriidae															
Killdeer	NM/B	x	3	0	0	0	0	0	0	3	0	0	6	5	11
Laridae															
Ring-billed Gull	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	37	37
Columbidae															
Rock Pigeon	R/B	x	4	0	0	0	3	0	0	0	0	0	7	6	13

Appendix 3-5: Table 1. continued

Family/Species	Breeding/ Migration status	Special Designation	Census areas									Total point counts	Driving census	Total all censuses
			1	2	3	4	5	6	7	8	9			
Mourning Dove	R/B	x	2	2	0	2	0	2	4	0	2	14	11	25
Cuculidae														
Yellow-billed Cuckoo	NTM/B	ILCP, PF	0	1	0	0	0	1	0	0	0	2	0	2
Apodidae														
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	0	0	0	0	0	57	57
Trochilidae														
Ruby-throated Hummingbird	NTM/B	x	1	0	0	0	0	0	0	0	0	1	0	1
Picidae														
Red-bellied Woodpecker	R/B	x	0	3	2	0	1	1	2	0	0	9	4	13
Yellow-bellied Sapsucker	NM/NB	x	0	0	1	2	0	0	0	0	0	3	0	3
Downy Woodpecker	R/B	x	0	1	2	3	2	1	2	0	1	12	4	16
Northern Flicker	NM/B	ILCP, PF	3	1	3	1	0	1	0	3	0	12	4	16
Tyrannidae														
Eastern Wood-Pewee	NTM/B	x	0	2	1	0	1	3	0	0	0	7	0	7
Least Flycatcher	NTM/NB	x	0	0	0	0	0	0	0	0	0	0	1	1
Eastern Phoebe	NM/B	x	0	0	0	1	0	0	2	0	0	3	0	3
Great Crested Flycatcher	NTM/B	PF	0	2	1	0	2	1	0	0	0	6	0	6
Vireonidae														
White-eyed Vireo	NM/B	x	0	0	0	2	0	0	1	0	1	4	0	4
Yellow-throated Vireo	NTM/B	x	0	1	0	0	1	0	0	0	0	2	0	2
Warbling Vireo	NTM/B	x	0	0	0	0	0	0	1	0	1	2	4	6
Red-eyed Vireo	NTM/B	x	0	2	1	0	2	0	0	0	0	5	0	5
Corvidae														
Blue Jay	NM/B	x	3	0	3	4	0	2	1	0	0	13	2	15
American Crow	NM/B	x	5	0	0	0	0	0	3	3	5	16	4	20

Appendix 3-5: Table 1. continued

Family/Species	Breeding/ Migration status	Special Designation	Census areas									Total point counts	Driving census	Total all censuses
			1	2	3	4	5	6	7	8	9			
Alaudidae														
Horned Lark	NM/B	x	0	0	0	0	0	0	0	0	0	0	5	5
Hirundinidae														
Tree Swallow	NM/B	x	0	0	0	0	0	0	0	4	0	4	11	15
N. Rough-winged Swallow	NTM/B	x	0	0	0	0	0	0	0	2	0	2	0	2
Barn Swallow	R/B	x	6	0	0	0	0	0	0	5	0	11	13	24
Paridae														
Black-capped Chickadee	R/B	x	0	1	4	2	3	0	0	0	2	12	0	12
Tufted Titmouse	R/B	x	0	3	0	0	0	2	2	0	0	7	0	7
Sittidae														
White-breasted Nuthatch	R/B	x	0	0	0	0	1	1	2	0	0	4	1	5
Troglodytidae														
Carolina Wren	R/B	x	0	0	2	0	0	0	0	0	0	2	0	2
House Wren	NTM/B	x	0	1	0	1	2	3	0	0	0	7	5	12
Regulidae														
Golden-crowned Kinglet	NM/NB	x	0	0	3	0	0	0	0	0	0	3	0	3
Sylviidae														
Blue-gray Gnatcatcher	NTM/B	x	0	0	0	0	0	0	0	0	0	0	0	0
Turdidae														
Eastern Bluebird	R/B	x	2	0	0	0	0	1	0	0	0	3	12	15
Swainson's Thrush	NTM/NB	x	0	1	0	0	1	0	1	0	0	3	0	3
Wood Thrush	NTM/B	ILCP, PF	0	0	0	0	1	1	0	0	0	2	0	2
American Robin	NM/B	x	0	6	2	5	0	2	4	0	6	25	35	60
Mimidae														
Gray Catbird	NTM/B	x	0	1	0	0	0	0	2	0	0	3	3	6
Brown Thrasher	NM/B	ILCP, PF	0	0	0	0	0	0	0	0	2	2	1	3

Appendix 3-5: Table 1. continued

Family/Species	Breeding/ Migration status	Special Designation	Census areas									Total point counts	Driving census	Total all censuses	
			1	2	3	4	5	6	7	8	9				
Sturnidae															
European Starling	NM/B	x	6	0	0	8	0	0	0	2	0	16	27	43	
Bombycillidae															
Cedar Waxwing	NM/B	x	0	0	0	0	0	0	0	0	0	0	15	15	
Parulidae															
Tennessee Warbler	NTM/NB	x	0	0	0	0	0	0	0	0	0	0	3	3	
Orange-crowned Warbler	NM/NB	x	1	0	0	0	0	0	0	0	0	1	0	1	
Northern Parula	NTM/B	x	0	0	0	0	0	1	0	0	0	1	0	1	
Yellow Warbler	NTM/B	x	0	0	0	1	0	0	0	1	2	4	0	4	
Yellow-rumped Warbler	NTM/NB	x	0	2	0	2	0	2	0	0	0	6	0	6	
Palm Warbler	NTM/B	x	2	0	0	0	0	0	0	5	0	7	0	7	
American Redstart	NTM/B	x	0	0	1	0	0	0	0	0	0	1	0	1	
Common Yellowthroat	NTM/B	x	0	0	0	0	0	0	0	3	0	3	0	3	
Thraupidae															
Scarlet Tanager	NM/B	x	0	1	0	0	1	0	0	0	0	2	0	2	
Emberizidae															
Eastern Towhee	NM/B	x	0	2	2	0	1	1	0	0	0	6	1	7	
Field Sparrow	NM/B	ILCP, PF	0	0	0	0	0	0	0	2	2	4	0	4	
Song Sparrow	NM/B	x	2	0	0	0	0	0	1	1	2	6	1	7	
Lincoln's Sparrow	NN/NB	x	0	0	0	0	0	0	0	0	1	1	0	1	
Swamp Sparrow	NM/B	x	0	0	0	0	0	0	0	0	0	0	1	1	
White-throated Sparrow	NM/B	x	0	0	3	0	0	0	4	0	0	7	0	7	
White-crowned Sparrow	NM/NB	x	0	0	0	0	0	0	0	0	0	0	5	5	

Appendix 3-5: Table 1.concluded

Family/Species	Breeding/ Migration status	Special Designation	Census areas									Total point counts	Driving census	Total all censuses
			1	2	3	4	5	6	7	8	9			
Cardinalidae														
Northern Cardinal	R/B	x	2	2	3	3	0	2	1	0	0	13	7	20
Rose-breasted Grosbeak	NTM/B	x	0	0	0	0	1	3	0	0	0	4	0	4
Indigo Bunting	NTM/B	x	0	0	1	0	0	0	2	0	3	6	5	11
Icteridae														
Red-winged Blackbird	NM/B	x	5	0	0	2	0	0	0	12	2	10	35	45
Eastern Meadowlark	NM/B	PF	3	0	0	0	0	0	0	3	2	8	7	15
Common Grackle	NM/B	x	0	0	2	6	3	2	2	0	0	15	23	38
Brown-headed Cowbird	NM/B	x	0	0	1	0	0	3	0	0	0	4	2	6
Baltimore Oriole	NTM/B	PF	0	2	2	1	0	0	1	0	0	6	2	8
Fringillidae														
House Finch	R/B	x	4	0	0	3	0	0	0	0	0	7	4	11
American Goldfinch	R/B	x	3	0	0	2	0	2	0	3	5	15	8	23
Passeridae														
House Sparrow	R/B	x	0	0	0	5	0	0	0	0	0	5	35	40
Number of individuals			63	37	41	60	28	39	39	56	43	395	471	866
Number of species			20	19	21	22	18	23	19	18	17	64	47	77

Appendix 3-5: Table 2. Driving census results US 30 project corridor addendum; spring migration 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *The American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant. *Habitat Type:* St = Stream, FF = Farm field, S = Shrub, G = Grassland, F = Forest, U = Urban.

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Anatidae									
Canada Goose	NM/B	x	0	43	0	0	0	0	43
Mallard	NM/B	x	3	0	0	0	0	0	3
Ardeidae									
Great Blue Heron	NM/B	x	2	0	0	0	0	0	2
Cathartidae									
Turkey Vulture	NM/B	x	0	8	0	0	0	0	8
Accipitridae									
Osprey	NTM/B	IL En, ILCP	0	1	0	0	0	0	1
Cooper's Hawk	NM/B	x	0	1	0	0	0	0	1
Red-tailed Hawk	NM/B	x	0	4	0	0	0	0	5
Falconidae									
American Kestrel	NM/B	x	0	1	0	0	0	0	1
Merlin	NM/NB	x	0	1	0	0	0	0	1
Charadriidae									
Killdeer	NM/B	x	0	3	0	2	0	0	5
Laridae									
Ring-billed Gull	NM/B	x	0	34	0	0	0	0	37
Columbidae									
Rock Pigeon	R/B	x	0	0	0	0	0	6	6
Mourning Dove	R/B	x	0	0	2	0	0	9	11
Apodidae									
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	57	57

Appendix 3-5: Table 2. continued

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Picidae									
Red-bellied Woodpecker	R/B	x	0	0	0	0	4	0	4
Downy Woodpecker	R/B	x	0	0	0	0	3	1	4
Northern Flicker	NM/B	ILCP, PF	0	3	0	0	0	1	4
Tyrannidae									
Least Flycatcher	NTM/NB	x	1	0	0	0	0	0	1
Vireonidae									
Warbling Vireo	NTM/B	x	0	0	4	0	0	0	4
Corvidae									
Blue Jay	NM/B	x	0	0	0	0	0	2	2
American Crow	NM/B	x	0	0	0	0	0	4	4
Alaudidae									
Horned Lark	NM/B	x	0	5	0	0	0	0	5
Hirundinidae									
Tree Swallow	NM/B	x	0	0	0	1	0	10	11
Barn Swallow	R/B	x	0	10	0	3	0	0	13
Sittidae									
White-breasted Nuthatch	R/B	x	0	0	0	0	1	0	1
Troglodytidae									
House Wren	NTM/B	x	0	0	0	0	5	0	5
Turdidae									
Eastern Bluebird	R/B	x	0	12	0	0	0	0	12
American Robin	NM/B	x	0	15	0	0	0	20	35
Mimidae									
Gray Catbird	NTM/B	x	0	0	2	0	0	1	3
Brown Thrasher	NM/B	ILCP, PF	0	0	0	0	0	1	1

Appendix 3-5: Table 2. continued

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Sturnidae									
European Starling	NM/B	x	0	27	0	0	0	0	27
Bombycillidae									
Cedar Waxwing	NM/B	x	0	0	15	0	0	0	15
Parulidae									
Tennessee Warbler	NTM/NB	x	0	0	0	0	0	3	3
Emberizidae									
Eastern Towhee	NM/B	x	0	0	0	0	1	0	1
Song Sparrow	NM/B	x	0	0	0	0	0	1	1
Swamp Sparrow	NM/B	x	1	0	0	0	0	0	1
White-crowned Sparrow	NM/NB	x	0	0	0	5	0	0	5
Cardinalidae									
Northern Cardinal	R/B	x	1	0	0	0	5	1	7
Indigo Bunting	NTM/B	x	1	0	4	0	0	0	5
Icteridae									
Red-winged Blackbird	NM/B	x	7	28	0	0	0	0	35
Eastern Meadowlark	NM/B	PF	0	7	0	0	0	0	7
Common Grackle	NM/B	x	0	17	0	0	4	2	23
Brown-headed Cowbird	NM/B	x	0	0	0	0	0	2	2
Baltimore Oriole	NTM/B	PF	0	0	0	0	0	2	2
Fringillidae									
House Finch	R/B	x	0	0	0	0	0	4	4
American Goldfinch	R/B	x	0	7	0	0	0	1	8
Passeridae									
House Sparrow	R/B	x	0	7	0	0	0	28	35
Number of individuals			16	234	27	11	23	156	471
Number of species			7	20	5	4	7	20	47

APPENDIX 3-6

**Point count results and driving census results US 30 project corridor
addendum; breeding season 2008**

Appendix 3-6: Table 1. Census results US 30 project corridor addendum: breeding season 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Migration and Breeding Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant.

Family/Species	Breeding/migration status	Special designation	Census area									Census area totals	Driving census	All censuses	
			1	2	3	4	5	6	7	8	9				
Anatidae															
Canada Goose	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	12	12
Mallard	NM/B	x	0	0	0	0	0	0	0	0	0	0	3	3	
Phasianidae															
Ring-necked Pheasant	R/B	x	0	0	0	0	0	0	0	0	3	3	0	3	
Ardeidae															
Great Blue Heron	NM/B	x	0	0	0	0	0	0	0	0	0	0	2	2	
Cathartidae															
Turkey Vulture	NM/B	x	0	0	0	3	0	0	0	0	0	3	12	15	
Accipitridae															
Red-tailed Hawk	NM/B	x	3	0	0	1	0	0	0	0	0	4	3	7	
Falconidae															
American Kestrel	NM/B	x	0	0	0	0	0	0	0	1	0	1	2	3	
Charadriidae															
Killdeer	NM/B	x	2	0	0	0	0	0	0	2	0	4	3	7	
Columbidae															
Rock Pigeon	R/B	x	0	0	0	0	0	0	0	0	0	0	25	25	
Mourning Dove	R/B	x	0	0	1	4	1	3	1	0	2	12	4	16	
Cuculidae															
Yellow-billed Cuckoo	NTM/B	ILCP, PF	0	1	0	0	0	0	0	0	0	1	0	1	
Caprimulgidae															
Common Nighthawk	NTM/B	x	0	0	0	0	0	0	0	0	0	0	2	2	

Appendix 3-6: Table 1. continued

Family/Species	Breeding/migration status	Special designation	Census area									Census area totals	Driving census	All censuses	
			1	2	3	4	5	6	7	8	9				
Apodidae															
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	0	0	0	0	0	0	44	44
Trochilidae															
Ruby-throated Hummingbird	NTM/B	x	0	0	0	0	0	0	0	0	0	0	1	1	
Picidae															
Red-bellied Woodpecker	R/B	x	0	2	1	0	3	0	0	0	0	6	4	10	
Downy Woodpecker	R/B	x	2	1	2	0	1	0	3	0	0	9	3	12	
Northern Flicker	NM/B	ILCP, PF	0	3	0	2	0	2	0	0	0	7	6	13	
Tyrannidae															
Eastern Wood-Pewee	NTM/B	x	0	2	3	0	1	2	1	0	0	9	0	9	
Eastern Phoebe	NM/B	x	0	0	0	0	0	0	0	0	0	0	1	1	
Great Crested Flycatcher	NTM/B	PF	0	1	0	0	0	2	0	0	0	3	0	3	
Eastern Kingbird	NTM/B	PF	1	0	0	2	0	0	0	0	2	5	2	7	
Vireonidae															
White-eyed Vireo	NM/B	x	0	0	0	1	0	0	0	0	0	1	0	1	
Yellow-throated Vireo	NTM/B	x	0	0	0	0	1	0	0	0	0	1	0	1	
Warbling Vireo	NTM/B	x	0	0	0	2	0	0	0	0	0	2	2	4	
Red-eyed Vireo	NTM/B	x	0	3	1	0	0	3	1	0	0	8	0	8	
Corvidae															
Blue Jay	NM/B	x	0	1	1	0	2	0	0	0	0	4	15	19	
American Crow	NM/B	x	4	0	0	4	0	0	1	0	0	9	6	15	
Alaudidae															
Horned Lark	NM/B	x	0	0	0	0	0	0	0	0	0	0	35	35	
Hirundinidae															
Tree Swallow	NM/B	x	0	0	0	0	0	0	0	0	0	0	12	12	
Barn Swallow	R/B	x	6	0	0	7	0	0	0	0	12	25	13	38	

Appendix 3-6: Table 1. continued

Family/Species	Breeding/migration status	Special designation	Census area									Census area totals	Driving census	All censuses
			1	2	3	4	5	6	7	8	9			
Paridae														
Black-capped Chickadee	R/B	x	0	3	0	0	0	4	0	0	0	7	0	7
Tufted Titmouse	R/B	x	0	0	0	0	0	3	0	0	0	3	0	3
Sittidae														
White-breasted Nuthatch	R/B	x	0	0	1	0	1	2	0	0	0	4	0	4
Troglodytidae														
Carolina Wren	R/B	x	0	0	0	0	0	0	0	0	0	0	1	1
House Wren	NTM/B	x	0	2	0	0	2	1	0	0	0	5	2	7
Sylviidae														
Blue-gray Gnatcatcher	NTM/B	x	0	0	1	0	0	0	0	0	0	1	0	1
Turdidae														
Eastern Bluebird	R/B	x	2	0	0	3	0	0	0	0	0	5	6	11
Wood Thrush	NTM/B	ILCP, PF	0	1	0	0	0	1	0	0	0	2	0	2
American Robin	NM/B	x	2	0	1	3	0	0	0	3	0	9	47	56
Mimidae														
Gray Catbird	NTM/B	x	0	0	0	2	0	0	1	0	0	3	0	3
Brown Thrasher	NM/B	ILCP, PF	1	0	0	1	0	0	0	0	0	2	1	3
Sturnidae														
European Starling	NM/B	x	0	7	0	1	3	2	2	0	0	15	12	27
Parulidae														
Yellow Warbler	NTM/B	x	0	0	0	1	0	0	0	0	0	1	0	1
Common Yellowthroat	NTM/B	x	2	0	0	0	0	0	0	2	3	7	0	7
Thraupidae														
Scarlet Tanager	NM/B	x	0	0	1	0	0	0	0	0	0	1	0	1
Emberizidae														
Eastern Towhee	NM/B	x	0	2	0	0	1	0	1	0	0	4	0	4
Chipping Sparrow	NM/B	x	0	0	0	0	0	0	0	0	0	0	3	3

Appendix 3-6: Table 1. concluded

Family/Species	Breeding/migration status	Special designation	Census area									Census area totals	Driving census	All censuses
			1	2	3	4	5	6	7	8	9			
Emberizidae (continued)														
Field Sparrow	NM/B	ILCP, PF	0	0	0	0	0	0	0	3	1	4	0	4
Vesper Sparrow	NM/B	x	0	0	0	0	0	0	0	0	0	0	1	1
Song Sparrow	NM/B	x	3	0	0	2	1	0	0	1	2	9	2	11
Cardinalidae														
Northern Cardinal	R/B	x	1	1	3	1	2	2	3	0	0	13	5	18
Rose-breasted Grosbeak	NTM/B	x	0	0	0	0	0	1	0	0	0	1	0	1
Indigo Bunting	NTM/B	x	0	0	0	2	1	0	0	0	3	6	5	11
Dickcissel	NTM/B	ILCP, PF	0	0	0	0	0	0	0	0	0	0	4	4
Icteridae														
Red-winged Blackbird	NM/B	x	5	0	0	8	0	0	7	8	3	31	52	83
Eastern Meadowlark	NM/B	PF	2	0	0	3	0	0	0	4	0	9	4	13
Common Grackle	NM/B	x	0	9	0	0	0	11	0	0	0	20	38	58
Brown-headed Cowbird	NM/B	x	0	2	4	0	1	3	2	0	0	12	0	12
Baltimore Oriole	NTM/B	PF	0	0	1	0	1	2	0	0	0	4	0	4
Fringillidae														
House Finch	R/B	x	0	0	0	0	0	0	0	0	0	0	6	6
American Goldfinch	R/B	x	5	0	1	4	0	2	0	3	1	16	3	19
Passeridae														
House Sparrow	R/B	x	0	0	0	12	0	0	0	0	0	12	23	35
Number of individuals			41	41	22	69	22	46	23	27	32	323	427	750
Number of species			15	16	14	22	15	17	11	9	10	47	41	62

Appendix 3-6: Table 2. Driving census results US 30 project corridor addendum; breeding season 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *The American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant. *Habitat Type:* St = Stream, FF = Farm field, S = Shrub, G = Grassland, F = Forest, U = Urban.

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Anatidae									
Canada Goose	NM/B	x	0	0	12	0	0	0	12
Mallard	NM/B	x	0	3	0	0	0	0	3
Ardeidae									
Great Blue Heron	NM/B	x	2	0	0	0	0	0	2
Cathartidae									
Turkey Vulture	NM/B	x	0	12	0	0	0	0	12
Accipitridae									
Red-tailed Hawk	NM/B	x	0	2	0	0	0	1	3
Falconidae									
American Kestrel	NM/B	x	0	2	0	0	0	0	2
Charadriidae									
Killdeer	NM/B	x	0	3	0	0	0	0	3
Columbidae									
Rock Pigeon	R/B	x	0	0	0	0	0	25	25
Mourning Dove	R/B	x	0	0	0	0	0	4	4
Caprimulgidae									
Common Nighthawk	NTM/B	x	0	0	0	0	0	2	2
Apodidae									
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	44	44
Trochilidae									
Ruby-throated Hummingbird	NTM/B	x	0	0	0	0	1	1	1

Appendix 3-6: Table 2. continued

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Picidae									
Red-bellied Woodpecker	R/B	x	0	0	0	0	3	1	4
Downy Woodpecker	R/B	x	1	0	2	0	0	0	3
Tyrannidae									
Eastern Phoebe	NM/B	x	0	0	0	0	0	1	1
Eastern Kingbird	NTM/B	PF	0	0	2	0	0	0	2
Vireonidae									
Warbling Vireo	NTM/B	x	0	0	2	0	0	0	2
Corvidae									
Blue Jay	NM/B	x	2	5	3	0	0	5	15
American Crow	NM/B	x	0	0	4	0	0	2	6
Alaudidae									
Horned Lark	NM/B	x	0	35	0	0	0	0	35
Hirundinidae									
Tree Swallow	NM/B	x	12	0	0	0	0	0	12
Barn Swallow	R/B	x	0	4	0	0	0	9	13
Troglodytidae									
Carolina Wren	R/B	x	0	0	0	0	0	1	1
House Wren	NTM/B	x	0	0	0	0	0	2	2
Turdidae									
Eastern Bluebird	R/B	x	0	2	4	0	0	0	6
American Robin	NM/B	x	0	0	20	0	16	21	47
Mimidae									
Brown Thrasher	NM/B	ILCP, PF	0	0	1	0	0	0	1
Sturnidae									
European Starling	NM/B	x	0	0	0	0	0	12	12

Appendix 3-6: Table 2. concluded

Family/Species	Breeding/ Migration status	Special Designation	Habitat types						Total
			St	FF	S	G	F	U	
Emberizidae									
Chipping Sparrow	NM/B	x	0	0	0	0	0	3	3
Vesper Sparrow	NM/B	x	0	1	0	0	0	0	1
Song Sparrow	NM/B	x	0	0	0	0	0	2	2
Cardinalidae									
Northern Cardinal	R/B	x	0	0	0	0	4	1	5
Indigo Bunting	NTM/B	x	0	0	5	0	0	0	5
Dickcissel	NTM/B	ILCP, PF	0	0	0	4	0	0	4
Icteridae									
Red-winged Blackbird	NM/B	x	0	52	0	0	0	0	52
Eastern Meadowlark	NM/B	PF	0	4	0	0	0	0	4
Common Grackle	NM/B	x	0	31	0	0	0	7	38
Fringillidae									
House Finch	R/B	x	0	0	0	0	0	6	6
American Goldfinch	R/B	x	0	0	3	0	0	0	3
Passeridae									
House Sparrow	R/B	x	0	0	0	0	0	23	23
Number of individuals			17	156	58	4	24	173	421
Number of species			4	12	11	1	4	21	41

APPENDIX 3-7

**Point count results and driving census results for US 30 project corridor
addendum; fall migration 2008**

Appendix 3-7: Table 1. Census results US 30 project corridor addendum: fall 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Migration and Breeding Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant.

Family/Species	Breeding/ Migration status	Special Designation	Census area									Census area totals	Driving census total	All censuses	
			1	2	3	4	5	6	7	8	9				
Anatidae															
Canada Goose	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	47	47
Phasianidae															
Ring-necked Pheasant	R/B	x	0	0	0	0	0	0	0	0	0	0	1	1	
Ardeidae															
Great Blue Heron	NM/B	x	0	0	0	0	0	0	0	0	0	0	2	2	
Cathartidae															
Turkey Vulture	NM/B	x	0	0	0	0	0	0	0	0	0	0	13	13	
Accipitridae															
Northern Harrier	NM/NB	IL En, ILCP	0	0	0	0	0	0	0	0	0	0	2	2	
Cooper's Hawk	NM/B	x	0	1	0	0	0	0	0	0	0	1	1	2	
Red-tailed Hawk	NM/B	x	2	0	0	0	0	0	0	1	0	3	4	7	
Falconidae															
American Kestrel	NM/B	x	0	0	0	0	0	0	0	0	0	0	3	3	
Columbidae															
Rock Pigeon	R/B	x	0	0	0	0	0	0	0	6	0	6	55	61	
Mourning Dove	R/B	x	3	3	0	6	0	2	11	0	0	25	30	55	
Apodidae															
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	0	0	0	0	0	25	25	
Picidae															
Red-bellied Woodpecker	R/B	x	0	0	2	0	1	2	2	0	0	7	2	9	
Downy Woodpecker	R/B	x	0	1	0	0	1	0	3	0	0	5	3	8	
Northern Flicker	NM/B	ILCP, PF	5	0	0	3	2	0	0	0	2	12	6	18	

Appendix 3-7: Table 1. continued

Family/Species	Breeding/ Migration status	Special Designation	Census area									Census area totals	Driving census total	All censuses	
			1	2	3	4	5	6	7	8	9				
Tyrannidae															
Eastern Wood-Pewee	NTM/B	x	0	1	0	0	0	0	0	0	0	0	1	2	3
Eastern Phoebe	NM/B	x	0	0	0	0	0	0	0	0	0	0	0	1	1
Eastern Kingbird	NTM/B	PF	0	0	0	0	0	0	0	0	0	0	0	2	2
Vireonidae															
Blue-headed Vireo	NM/B	x	0	0	0	0	0	0	1	0	0	1	0	1	1
Red-eyed Vireo	NTM/B	x	0	1	0	0	0	2	0	0	0	3	0	3	3
Corvidae															
Blue Jay	NM/B	x	6	0	0	0	0	0	0	0	0	6	11	17	17
American Crow	NM/B	x	4	0	0	5	1	0	0	3	0	13	8	21	21
Alaudidae															
Horned Lark	NM/B	x	0	0	0	0	0	0	0	2	0	2	7	9	9
Hirundinidae															
Tree Swallow	NM/B	x	0	0	0	0	0	0	0	0	0	0	47	47	47
Barn Swallow	R/B	x	11	0	0	0	0	0	0	0	6	17	25	42	42
Paridae															
Black-capped Chickadee	R/B	x	0	0	4	2	0	0	1	0	0	7	0	7	7
Tufted Titmouse	R/B	x	0	0	0	0	0	6	0	0	0	6	0	6	6
Sittidae															
White-breasted Nuthatch	R/B	x	0	2	1	0	3	0	2	0	0	8	1	9	9
Certhiidae															
Brown Creeper	NM/B	ILCP	0	0	0	0	0	3	0	0	0	3	0	3	3
Troglodytidae															
House Wren	NTM/B	x	0	0	0	0	0	0	0	0	0	0	2	2	2
Regulidae															
Ruby-crowned Kinglet	NM/NB	x	0	0	0	2	0	0	0	0	0	2	3	5	5

Appendix 3-7: Table 1. continued

Family/Species	Breeding/ Migration status	Special Designation	Census area									Census area totals	Driving census total	All censuses	
			1	2	3	4	5	6	7	8	9				
Sylviidae															
Blue-gray Gnatcatcher	NTM/B	x	0	0	0	1	0	0	0	0	0	0	1	0	1
Turdidae															
Eastern Bluebird	R/B	x	5	0	0	0	0	0	0	1	2	8	11	19	
Swainson's Thrush	NTM/NB	x	0	0	2	0	0	0	1	0	0	3	0	3	
Wood Thrush	NTM/B	ILCP, PF	0	0	0	0	0	1	0	0	0	1	0	1	
American Robin	NM/B	x	8	2	0	1	0	6	4	2	3	26	36	62	
Mimidae															
Gray Catbird	NTM/B	x	0	0	0	1	0	0	0	2	0	3	0	3	
Sturnidae															
European Starling	NM/B	x	0	0	35	0	0	0	0	25	2	62	32	94	
Parulidae															
Nashville Warbler	NTM/NB	x	0	2	0	1	0	0	0	0	0	3	1	4	
Blackpoll Warbler	NTM/NB	x	0	1	0	0	0	0	0	0	0	1	0	1	
Ovenbird	NTM/B	ILCP	0	0	0	0	0	1	0	0	0	1	0	1	
Emberizidae															
Song Sparrow	NM/B	x	6	0	0	3	0	0	1	2	1	13	4	17	
White-throated Sparrow	NM/B	x	1	0	0	4	0	0	0	0	1	6	0	6	
White-crowned Sparrow	NM/NB	x	0	0	0	0	4	0	0	0	0	4	2	6	
Cardinalidae															
Northern Cardinal	R/B	x	0	2	1	0	2	3	0	0	2	10	0	10	
Icteridae															
Red-winged Blackbird	NM/B	x	13	0	0	5	0	0	3	0	0	21	28	49	
Eastern Meadowlark	NM/B	PF	1	0	0	9	0	0	0	0	0	10	9	19	
Common Grackle	NM/B	x	25	0	10	0	0	0	0	0	12	47	38	85	
Brown-headed Cowbird	NM/B	x	6	0	2	0	2	14	0	0	2	26	12	38	

Appendix 3-7: Table 1. concluded

Family/Species	Breeding/ Migration status	Special Designation	Census area									Census area totals	Driving census total	All censuses
			1	2	3	4	5	6	7	8	9			
Fringillidae														
House Finch	R/B	x	0	0	0	4	0	0	0	0	0	4	8	12
American Goldfinch	R/B	x	0	0	0	7	0	2	0	0	2	11	3	14
Passeridae														
House Sparrow	R/B	x	0	0	0	0	0	0	0	0	0	0	23	23
Number of individuals			96	16	57	54	16	42	29	44	35	389	510	899
Number of species			14	10	8	15	8	11	11	9	11	39	38	51

Appendix 3-7: Table 2. Driving census results US 30 project corridor addendum; fall 2008. *Special Designations:* IL T = Illinois threatened, IL E = Illinois endangered, ILCP = Illinois conservation priority, WL = *The American Bird Conservancy* watch list species, PF = *Partners in Flight* species of special concern. *Status:* B = breeds in the area R = year round resident, M = temperate zone migrant; NT = Neotropical migrant. *Habitat Type:* St = Stream, FF = Farm field, S = Shrub, G = Grassland, F = Forest, U = Urban.

Family/Species	Breeding/ Migration status	Special Designation	Habitat type						Total
			St	FF	S	G	F	U	
Anatidae									
Canada Goose	NM/B	x	0	47	0	0	0	0	47
Phasianidae									
Ring-necked Pheasant	R/B	x	0	1	0	0	0	0	1
Ardeidae									
Great Blue Heron	NM/B	x	2	0	0	0	0	0	2
Cathartidae									
Turkey Vulture	NM/B	x	0	12	0	0	0	1	13
Accipitridae									
Northern Harrier	NM/NB	IL En, ILCP	0	2	0	0	0	0	2
Cooper's Hawk	NM/B	x	0	1	0	0	0	0	1
Red-tailed Hawk	NM/B	x	0	3	0	1	0	0	4
Falconidae									
American Kestrel	NM/B	x	0	2	1	0	0	0	3
Columbidae									
Rock Pigeon	R/B	x	0	12	0	0	0	43	55
Mourning Dove	R/B	x	0	0	27	0	0	13	30
Apodidae									
Chimney Swift	NTM/B	ILCP, PF	0	0	0	0	0	25	25
Picidae									
Red-bellied Woodpecker	R/B	x	0	0	0	0	1	1	2
Downy Woodpecker	R/B	x	0	0	1	0	0	2	3
Northern Flicker	NM/B	ILCP, PF	0	0	3	1	0	2	6

Appendix 3-7: Table 2. continued

Family/Species	Breeding/ Migration status	Special Designation	Habitat type						Total
			St	FF	S	G	F	U	
Tyrannidae									
Eastern Wood-Pewee	NTM/B	x	0	0	0	0	1	1	2
Eastern Phoebe	NM/B	x	1	0	0	0	0	0	1
Eastern Kingbird	NTM/B	PF	0	0	0	2	0	0	2
Corvidae									
Blue Jay	NM/B	x	0	0	0	0	0	11	11
American Crow	NM/B	x	0	0	0	0	0	8	8
Alaudidae									
Horned Lark	NM/B	x	0	7	0	0	0	0	7
Hirundinidae									
Tree Swallow	NM/B	x	0	47	0	0	0	0	47
Barn Swallow	R/B	x	0	17	0	0	0	8	25
Sittidae									
White-breasted Nuthatch	R/B	x	0	0	0	0	0	1	1
Troglodytidae									
House Wren	NTM/B	x	0	0	0	0	0	2	2
Regulidae									
Ruby-crowned Kinglet	NM/NB	x	0	0	3	0	0	0	3
Turdidae									
Eastern Bluebird	R/B	x	0	0	0	11	0	0	11
American Robin	NM/B	x	0	0	7	5	13	11	36
Sturnidae									
European Starling	NM/B	x	0	0	0	17	0	15	32
Parulidae									
Nashville Warbler	NTM/NB	x	1	0	0	0	0	0	1

Appendix 3-7: Table 2. concluded

Family/Species	Breeding/ Migration status	Special Designation	Habitat type						Total
			St	FF	S	G	F	U	
Emberizidae									
Song Sparrow	NM/B	x	0	0	0	0	0	4	4
White-crowned Sparrow	NM/NB	x	0	0	0	0	0	2	2
Icteridae									
Red-winged Blackbird	NM/B	x	5	0	0	0	6	17	28
Eastern Meadowlark	NM/B	PF	0	0	0	9	0	0	9
Common Grackle	NM/B	x	0	0	0	0	20	18	38
Brown-headed Cowbird	NM/B	x	0	2	0	0	0	10	12
Fringillidae									
House Finch	R/B	x	0	0	0	0	0	8	8
American Goldfinch	R/B	x	0	0	2	0	0	0	3
Passeridae									
House Sparrow	R/B	x	0	0	0	0	0	23	23
Number of individuals			9	153	44	46	41	226	510
Number of species			3	12	7	6	5	21	38

Appendix 3-8

Location and habitat descriptions of bird census

Table 1. Location and habitat descriptions of bird census.

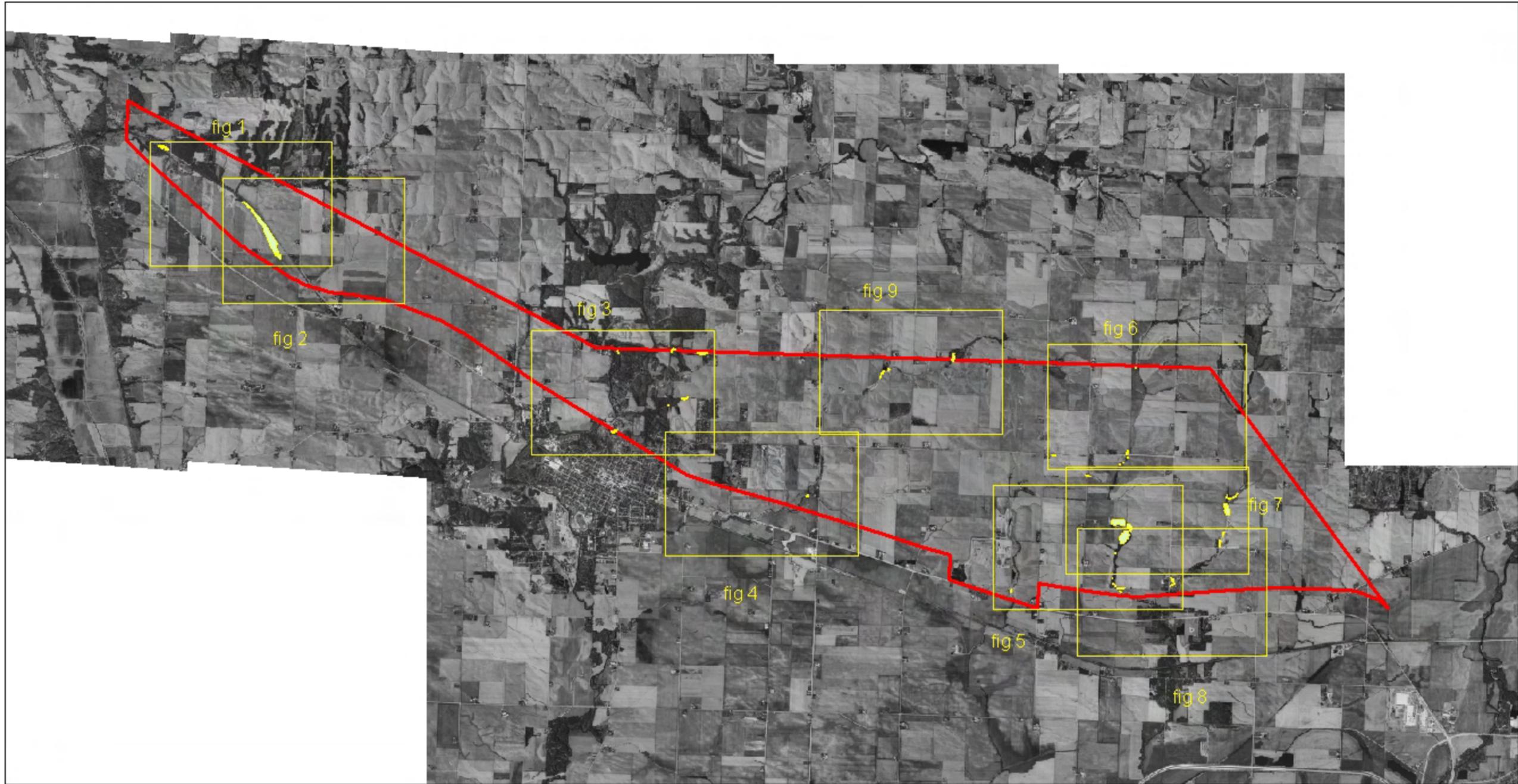
Census area	Location: UTM	Habitat Description
1	Zone 15 743028 E 4638702 N	Shrubland
2	Zone 15 743870 E 4638442 N	Forest
3	Zone 15 744214 E 4637951 N	Forest
4	Zone 15 745020 E 4637951 N	Shrubland
5	Zone 16 252665 E 4635521 N	Forest
6	Zone 16 253807 E 4634944 N	Forest
7	Zone 16 254110 E 4634532 N	Forest
8	Zone 16 262952 E 4631784 N	Grassland (wet meadow)
9	Zone 16 262851 4632084	Grassland (wet meadow)

Nine point census areas were located in three habitat types, shrubland (census areas 1 & 4) upland forest (census areas 2, 3, 5, 6 & 7) and grassland (census areas 8 & 9). A driving census route covered primarily farm fields but also including shrubland, grassland, forest edge and urban habitat and crossing several streams

Appendix 5-1

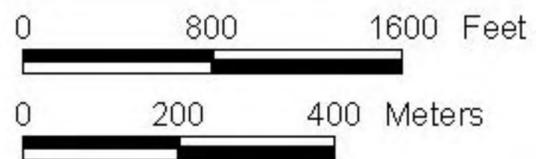
Wetland Location Maps

US 30, Wetland Delineations 2008 Whiteside County Cover Map

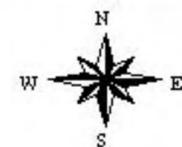


US 30, Wetland Delineations 2008 Whiteside County

figure 1



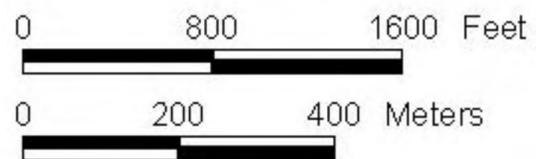
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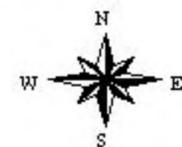
01/09

US 30, Wetland Delineations 2008 Whiteside County

figure 2



scale 1:9600
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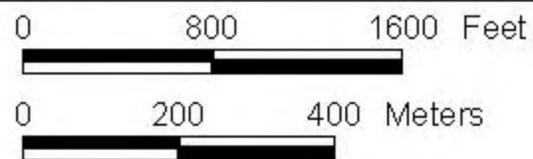


US 30, Wetland Delineations 2008 Whiteside County

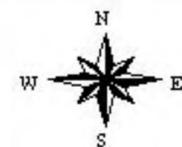
figure 3



-  Wetland site
-  Non-wet NWI site
-  Project boundary



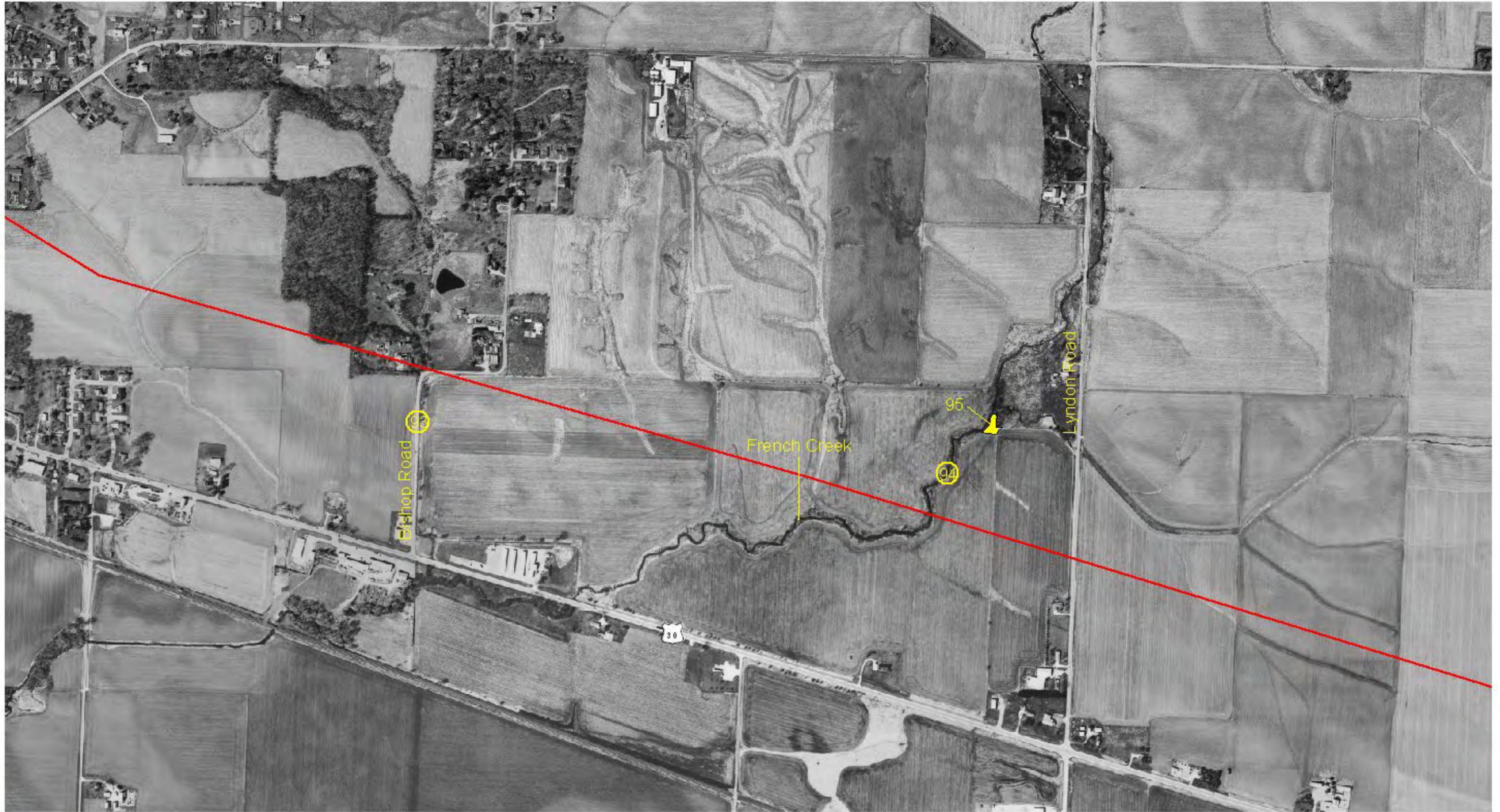
scale 1:9600
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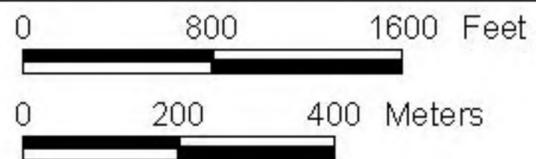
01/09

US 30, Wetland Delineations 2008 Whiteside County

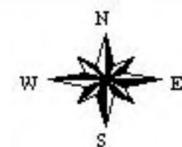
figure 4



-  Wetland site
-  Non-wet NWI site
-  Project boundary



scale 1:9600
1 inch=800 ft



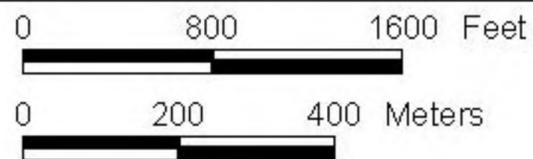
01/09

US 30, Wetland Delineations 2008 Whiteside County

figure 5



-  Wetland site
-  Non-wet NWI site
-  Project boundary



scale 1:9600
1 inch=800 ft



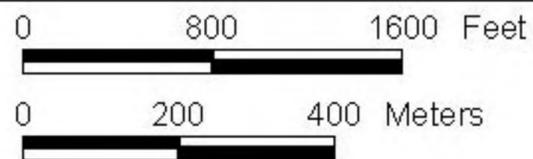
01/09

US 30, Wetland Delineations 2008 Whiteside County

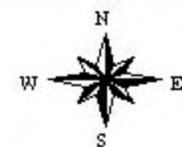
figure 6



-  Wetland site
-  Non-wet NWI site
-  Project boundary



scale 1:9600
1 inch=800 ft

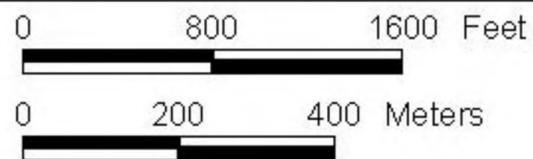


US 30, Wetland Delineations 2008 Whiteside County

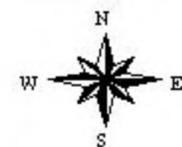
figure 7



- Wetland site
- Non-wet NWI site
- Project boundary



scale 1:9600
1 inch=800 ft

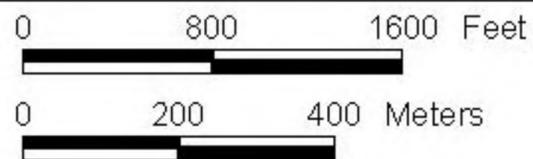


US 30, Wetland Delineations 2008 Whiteside County

figure 8



-  Wetland site
-  Non-wet NWI site
-  Project boundary



scale 1:9600
1 inch=800 ft

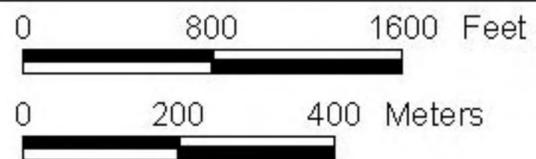


US 30, Wetland Delineations 2008 Whiteside County

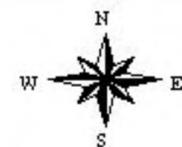
figure 9



-  Wetland site
-  Non-wet NWI site
-  Project boundary



scale 1:9600
1 inch=800 ft



01/09

Appendix 5-2
Wetland Determination Forms

ROUTINE ON-SITE WETLAND DETERMINATION

Site 84 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: N 1/2, SE 1/4, SW 1/4, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Festuca pratensis</i>	FACU-	herb
<i>Poa pratensis</i>	FAC-	herb

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

Hydrophytic vegetation: Yes: No: X
Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 3/4
Redox depletions: Yes: No: X
Matrix color: 10YR 3/1
Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Sawmill silty clay loam as a Cumulic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F6 – Redox Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 84 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: N ½, SE ¼, SW ¼, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

HYDROLOGY

Inundated: Yes (in parts) Depth of standing water: < 0.30 m (< 12 in)

Depth to saturated soil: 0.15 m (6 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, sheetflow, and runoff from adjacent impervious surfaces. Water exits this site through evapotranspiration and infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: This site occupies higher segments of a field with a series of swales. The landscape for this site is higher than the surrounding area.

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X

Rationale for decision: Based on the absence dominant hydrophytic vegetation and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland) and a PEMCH (a diked/impounded, seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
Ian Draheim (soils and hydrology)
Brad Zercher (GIS)
Illinois Natural History Survey
1816 S. Oak Street
Champaign, Illinois 61820
(217) 265-7888 (Zylka)

ROUTINE ON-SITE WETLAND DETERMINATION

Site 84 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: N ½, SE ¼, SW ¼, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Festuca pratensis</i>	meadow fescue	herb	FACU-	*
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Taraxacum officinale</i>	common dandelion	herb	FACU	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*

†Coefficient of Conservatism (Taft *et al.* 1997)

mCv = R/N = 0/2 = 0

*Non-native species

FQI = R/(√N) = 0/(√2) = 0

ROUTINE ON-SITE WETLAND DETERMINATION

Site 85 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: NE ¼, SE ¼, SW ¼, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Eleocharis erythropoda</i>	OBL	herb
<i>Ranunculus sceleratus</i>	OBL	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 3/4
Redox depletions: Yes: No: X
Matrix color: 10YR 3/1
Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Sawmill silty clay loam as a Cumulic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F6 – Redox Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 85 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: NE ¼, SE ¼, SW ¼, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: 0.56 m (22 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow, water leaves this site through evapotranspiration, soil infiltration, and flow into an adjacent ditch.
Other field evidence observed: This site occupies a series of low swales running through a pasture.

Wetland hydrology: Yes: X No:
Rationale: This site’s landscape position makes it likely 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland) and a PEMCH (a diked/impounded, seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 85 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: NE ¼, SE ¼, SW ¼, Sec 29, R4E, T22N
Location: 67 m (220 feet) northwest of the intersection of Millard Road and Kruger Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Alisma plantago-aquatica</i>	broad-leaf water-plantain	herb	OBL	2
<i>Alopecurus carolinianus</i>	annual foxtail	herb	FACW	0
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Eleocharis erythropoda</i>	red-rooted spike rush	herb	OBL	3
<i>Eleocharis obtusa</i>	blunt spike rush	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Ranunculus sceleratus</i>	cursed crowfoot	herb	OBL	3
<i>Veronica peregrina</i>	purslane speedwell	herb	FACW+	0

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$mCv = R/N = 11/7 = 1.57$

$FQI = R/(\sqrt{N}) = 11/(\sqrt{7}) = 4.16$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 86 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: S ¾ Sec 33, R4E, T22N and NW ¼, NE ¼, NE ¼, Sec 4, R4E, T21N

Location: On the north and south sides of Fulfs Road 442 m (1450 feet) west of Hillside Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Helianthus grosseratus</i>	FACW-	herb

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

Hydrophytic vegetation: Yes: No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: No:
Is the soil a histosol? Yes: No:
Histic epipedon present? Yes: No:
Redox concentrations: Yes: No: Color: 7.5YR 4/4
Redox depletions: Yes: No:
Matrix color: 10YR 4/1
Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: No:
Rationale: The NRCS classifies Sawmill silty clay loam as a Cumulic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 86 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: S $\frac{3}{4}$ Sec 33, R4E, T22N and NW $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec 4, R4E, T21N

Location: On the north and south sides of Fulfs Road 442 m (1450 feet) west of Hillside Road.

HYDROLOGY

Inundated: Yes (in parts) Depth of standing water: < 0.15 m (< 6 in)

Depth to saturated soil: 0.25 m (10 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site's landscape position and inundated state at the time of the survey indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMAD (a drained partially ditched, temporarily flooded, emergent palustrine wetland)

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 86 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: S ¾ Sec 33, R4E, T22N and NW ¼, NE ¼, NE ¼, Sec 4, R4E, T21N

Location: On the north and south sides of Fulfs Road 442 m (1450 feet) west of Hillside Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acorus calamus</i>	sweetflag	herb	OBL	4
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Anemone canadensis</i>	meadow anemone	herb	FACW	4
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Barbarea vulgaris</i>	winter cress	herb	FAC	*
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex stipata</i>	prickly sedge	herb	OBL	2
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Eleocharis erythropoda</i>	red-rooted spike rush	herb	OBL	3
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Galium obtusum</i>	wild madder	herb	FACW+	5
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus tenuis</i>	path rush	herb	FAC	0
<i>Monarda fistulosa</i>	wild bergamot	herb	FACU	4
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Pedicularis lanceolata</i>	swamp wood betony	herb	FACW+	9
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Tragopogon pratensis</i>	common goat's beard	herb	UPL	*
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Ulmus rubra</i>	slippery elm	shrub	FAC	3
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Veronica peregrina</i>	purslane speedwell	herb	FACW+	0
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 80/27 = 2.96

FQI = R/(√N) = 80/(√27) = 15.4

ROUTINE ON-SITE WETLAND DETERMINATION

Site 87 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, SW ¼, NW ¼, Sec 4, R4E, T21N
Location: Northeast of Hillside Road, approximately 0.72 km(0.45 miles) from the intersection of Hillside Road and Ward Road.

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

VEGETATION

Dominant Plant Species **Indicator Status** **Stratum**
Poa pratensis FAC- herb

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

Hydrophytic vegetation: Yes: No: X
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/4
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1
Other indicators: None

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Sawmill silty clay loam as a Cumulic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 87 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: NW ¼, SW ¼, NW ¼, Sec 4, R4E, T21N

Location: Northeast of Hillside Road, approximately 0.72 km(0.45 miles) from the intersection of Hillside Road and Ward Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.61 m (24 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None

Wetland hydrology: Yes: No: X

Rationale: This site is a gently sloping pasture. No significant low spots or depressions are present. The site is likely drained by the adjacent roadside ditch.

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X

Rationale for decision: Based on the absence of dominant hydrophytic vegetation and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 87 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, SW ¼, NW ¼, Sec 4, R4E, T21N
Location: Northeast of Hillside Road, approximately 0.72 km(0.45 miles) from the intersection of Hillside Road and Ward Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Taraxacum officinale</i>	common dandelion	herb	FACU	*

†Coefficient of Conservatism (Taft *et al.* 1997)

mCv = N/A

*Non-native species

FQI = N/A

ROUTINE ON-SITE WETLAND DETERMINATION

Site 88 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: NW ¼, NW ¼, NW ¼, Sec 2, R4E, T21N

Location: 18 meters(60 feet) east of the edge of Creamery Road and 670 m (2200 feet) north of Ward Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Poa pratensis</i>	FAC-	herb

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

Hydrophytic vegetation: Yes: No: X

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

SOILS

Series and phase: Mapped as Elburn silt loam.

On Whiteside 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
Redox depletions: Yes: No: X
Matrix color: 10YR 4/3
Other indicators: None

Hydric soils: Yes: No: X

Rationale: The NRCS classifies Elburn silt loam as an Aquic Argiudoll that is somewhat poorly drained. This soil lacks both a low chroma matrix and redoximorphic concentrations. Therefore, this site does not have hydric soils.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 88 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, NW ¼, NW ¼, Sec 2, R4E, T21N
Location: 18 meters(60 feet) east of the edge of Creamery Road and 670 m (2200 feet) north of Ward Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: > 0.76 m (> 30 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: No: X
Rationale: This site was a grassed waterway in a crop field. It has steep sides and serves as a channel to remove excess water from the field. Water does not remain on this site for any significant period.

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X
Rationale for decision: Based on the absence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 88 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: NW ¼, NW ¼, NW ¼, Sec 2, R4E, T21N

Location: 18 meters(60 feet) east of the edge of Creamery Road and 670 m (2200 feet) north of Ward Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Barbarea vulgaris</i>	winter cress	herb	FAC	*
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Dactylis glomerata</i>	orchard grass	herb	FACU	*
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Melilotus officinalis</i>	yellow sweet clover	herb	FACU	*
<i>Morus alba</i>	white mulberry	shrub	FAC	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Taraxacum officinale</i>	common dandelion	herb	FACU	*
<i>Tragopogon pratensis</i>	common goat's beard	herb	UPL	*
<i>Trifolium pratense</i>	red clover	herb	FACU+	*

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$mCv = R/N = 2/4 = 0.5$

$FQI = R/(\sqrt{N}) = 2/(\sqrt{4}) = 1$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 89 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Pond

Legal Description: NE ¼, NE ¼, NW ¼, Sec 12, R4E, T21N

Location: 67 m (220 feet) west of Illinois Route 78 and 580 m(1900 feet) north of US 30.

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

VEGETATION

Dominant Plant Species **Indicator Status** **Stratum**
None

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

Hydrophytic vegetation: Yes: No: X

Rationale: This site was an unvegetated pond and had no significant fringe that would qualify as hydrophytic vegetation.

SOILS

Series and phase: NRCS mapped as Orthents, loamy, undulating (water), revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: Undet.: X
Histic epipedon present? Yes: No: Undet.: X
Redox concentrations: Yes: No: Undet.: X
Redox depletions: Yes: No: Undet.: X
Matrix color: N/A
Other indicators: None

Hydric soils: Yes: No: X

Rationale: This site is a deepwater pond. Thus, this pond does not have the soil necessary to support dominant hydrophytic vegetation. Therefore, this site does not have hydric soils.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 89 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/28/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Pond

Legal Description: NE ¼, NE ¼, NW ¼, Sec 12, R4E, T21N

Location: 67 m (220 feet) west of Illinois Route 78 and 580 m(1900 feet) north of US 30.

HYDROLOGY

Inundated: Yes Depth of standing water: > 2 m (> 6.6 ft)

Depth to saturated soil: Inundated

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: This site is a pond and is likely deeper than 2 m (6.6 feet) and therefore does not qualify for wetland hydrology.

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X

Rationale for decision: Based on the absence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PUBG (an intermittently exposed unconsolidated bottom palustrine wetland)

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 89 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Pond
Legal Description: NE ¼, NE ¼, NW ¼, Sec 12, R4E, T21N
Location: 67 m (220 feet) west of Illinois Route 78 and 580 m(1900 feet) north of US 30.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer saccharinum</i>	silver maple	tree/sapling	FACW	1
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Salix alba 'tristis'</i>	white willow	tree	FACU	*
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Vitis riparia</i>	riverbank grape	vine	FACW-	2

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 9/5 = 1.8

FQI = R/(√N) = 9/(√5) = 4.02

ROUTINE ON-SITE WETLAND DETERMINATION

Site 90 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NE ¼, SE ¼, NW ¼, Sec 8, R5E, T21N
Location: 100 m (330 feet) south of Norrish Road and 871 m (2860 feet) west of Bishop Road

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Poa pratensis</i>	FAC-	herb

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

Hydrophytic vegetation: Yes: No: X

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

SOILS

Series and phase: Mapped as Seaton silt loam.

On Whiteside 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
Redox depletions: Yes: No: X
Matrix color: 10YR 4/3
Other indicators: None

Hydric soils: Yes: No: X

Rationale: The NRCS classifies Seaton silt loam as a Typic Hapludalf that is well drained. This soil lacks both a low chroma matrix and redoximorphic concentrations. Therefore, this site does not have hydric soils.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 90 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NE ¼, SE ¼, NW ¼, Sec 8, R5E, T21N
Location: 100 m (330 feet) south of Norrish Road and 871 m (2860 feet) west of Bishop Road

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: > 0.76 m (> 30 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: No: X
Rationale: This site was sloping and did not occupy a low point in the landscape. This area will not be inundated for a sufficient period to meet the wetland hydrology criteria.

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X
Rationale for decision: Based on the absence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PUBGH (a diked/impounded intermittently exposed unconsolidated bottom palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 90 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/28/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NE ¼, SE ¼, NW ¼, Sec 8, R5E, T21N
Location: 100 m (330 feet) south of Norrish Road and 871 m (2860 feet) west of Bishop Road

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Taraxacum officinale</i>	common dandelion	herb	FACU	*
<i>Thlaspi arvense</i>	field penny cress	herb	UPL	*
<i>Trifolium repens</i>	white clover	herb	FACU+	*

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 1/2 = 0.5

FQI = R/(√N) = 1/(√2) = 0.71

ROUTINE ON-SITE WETLAND DETERMINATION

Site 91 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: NE ¼, NE ¼, SW ¼, Sec 8, R5E, T21N
Location: 427 m (1400 feet) south of Norrish Road and 908 m (2980 feet) west of Bishop Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Carex trichocarpa</i>	OBL	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to Birds silt loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/6
Redox depletions: Yes: No: X
Matrix color: 10YR 4/2

Other indicators: This site is located in a low-lying area along a small stream.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Birds silt loam as a Typic Fluvaquent that is poorly or very poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 91 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: NE ¼, NE ¼, SW ¼, Sec 8, R5E, T21N

Location: 427 m (1400 feet) south of Norrish Road and 908 m (2980 feet) west of Bishop Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.36 m (14 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, seepage from the adjacent hillside, and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site is at the bottom of a slope and occupies a low spot compared to the surrounding landforms. This field evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 91 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: NE ¼, NE ¼, SW ¼, Sec 8, R5E, T21N

Location: 427 m (1400 feet) south of Norrish Road and 908 m (2980 feet) west of Bishop Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Osmorhiza claytonii</i>	sweet cicely	herb	FACU-	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Stellaria media</i>	common chickweed	herb	FACU	*
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$mCv = R/N = 35/16 = 2.19$

$FQI = R/(\sqrt{N}) = 35/(\sqrt{16}) = 8.75$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 92 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: NE ¼, NW ¼, SW ¼, Sec 8, R5E, T21N

Location: 418 m (1370 feet) south of Norrish Road and 570 m (1870 feet) west of Ridgewood Drive.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Hydrophyllum virginianum</i>	FACW-	herb
<i>Impatiens capensis</i>	FACW	herb
<i>Cryptotaenia canadensis</i>	FAC	herb
<i>Juglans nigra</i>	FACU	tree

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/4
Redox depletions: Yes: No:
Matrix color: 10YR 4/2

Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 92 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: NE ¼, NW ¼, SW ¼, Sec 8, R5E, T21N

Location: 418 m (1370 feet) south of Norrish Road and 570 m (1870 feet) west of Ridgewood Drive.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.36 m (14 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site has a low position in the landscape and appears to retain water. Field evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland)

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 92 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forested wetland
Legal Description: NE ¼, NW ¼, SW ¼, Sec 8, R5E, T21N
Location: 418 m (1370 feet) south of Norrish Road and 570 m (1870 feet) west of Ridgewood Drive.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Hydrophyllum virginianum</i>	Virginia waterleaf	herb	FACW-	5
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Lonicera maackii</i>	Amur honeysuckle	shrub	UPL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$mCv = R/N = 24/8 = 3.0$

$FQI = R/(\sqrt{N}) = 24/(\sqrt{8}) = 8.49$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 93 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, NW ¼, SW ¼, Sec 16, R5E, T21N
Location: 332 m (1090 feet) north of US 30 and 5 m (16 feet) east of Bishop Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Bromus inermis</i>	UPL	herb

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

Hydrophytic vegetation: Yes: No: X
Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Seaton silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 4/4
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1
Other indicators: This site is located in a low-lying area along a ditch.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 93 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, NW ¼, SW ¼, Sec 16, R5E, T21N
Location: 332 m (1090 feet) north of US 30 and 5 m (16 feet) east of Bishop Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.51 m (20 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration, soil infiltration, and flow along a ditch to the south.

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: This site is a roadside ditch, and while it may hold water in extreme rain events, the site is designed to drain water to the south into French Creek. This evidence indicates that this site is not 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 for decision: Based on the absence of dominant hydrophytic vegetation, and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 93 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, NW ¼, SW ¼, Sec 16, R5E, T21N
Location: 332 m (1090 feet) north of US 30 and 5 m (16 feet) east of Bishop Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Celtis occidentalis</i>	hackberry	tree	FAC-	3
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Morus alba</i>	white mulberry	tree	FAC	*
<i>Rubus occidentalis</i>	black raspberry	shrub	UPL	2

†Coefficient of Conservatism (Taft *et al.* 1997) mCv = R/N = 21/5 = 4.2
 *Non-native species FQI = R/(√N) = 21/(√5) = 9.39

ROUTINE ON-SITE WETLAND DETERMINATION

Site 94 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forbland
Legal Description: SW ¼, NE ¼, SE ¼, Sec 16, R5E, T21N
Location: 602 m (1975 feet) north of US 30 and 305 m (1000 feet) west of Lyndon Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Ambrosia trifida</i>	FAC+	herb
<i>Elymus virginicus</i>	FACW-	herb

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

Hydrophytic vegetation: Yes: No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Orion silt loam.

On Whiteside County hydric soils list? Yes: No:
Is the soil a histosol? Yes: No:
Histic epipedon present? Yes: No:
Redox concentrations: Yes: No:
Redox depletions: Yes: No:
Matrix color: 10YR 4/2
Other indicators: N/A

Hydric soils: Yes: No:
Rationale: The NRCS classifies Orion silt loam as an Aquic Udifluent that is somewhat poorly drained. This soil contains a low chroma matrix, but lacks the redoximorphic features needed to define it as hydric.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 94 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forbland
Legal Description: SW ¼, NE ¼, SE ¼, Sec 16, R5E, T21N
Location: 602 m (1975 feet) north of US 30 and 305 m (1000 feet) west of Lyndon Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: > 0.51 m (> 24 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration, sheetflow, and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: This site is higher than adjacent ground and water will run off to lower areas making it unlikely 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 for decision: Based on the absence of hydric soils and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PFO1A (a temporarily flooded, broad leaved deciduous, forested wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 94 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forbland
Legal Description: SW ¼, NE ¼, SE ¼, Sec 16, R5E, T21N
Location: 602 m (1975 feet) north of US 30 and 305 m (1000 feet) west of Lyndon Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Lactuca floridana</i>	blue lettuce	herb	FAC-	4
<i>Morus alba</i>	white mulberry	tree	FAC	*
<i>Osmorhiza longistylis</i>	anise-root	herb	FACU-	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rubus occidentalis</i>	black raspberry	shrub	UPL	2
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 35/15 = 2.33$$

$$FQI = R/(\sqrt{N}) = 35/(\sqrt{15}) = 9.04$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 95 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: N ½, NE ¼, SE ¼, Sec 16, R5E, T21N
Location: 716 m (2350 feet) north of US 30 and 187 m (615 feet) west of Lyndon Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Ambrosia trifida</i>	FAC+	herb
<i>Urtica dioica</i>	FAC+	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/3 & 10YR 4/4
Redox depletions: Yes: No: X
Matrix color: 10YR 3/1 over 10YR 2/1
Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Birds silt loam as a Typic Fluvaquent that is poorly and very poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F6 – Redox Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 95 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: N ½, NE ¼, SE ¼, Sec 16, R5E, T21N

Location: 716 m (2350 feet) north of US 30 and 187 m (615 feet) west of Lyndon Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.46 m (18 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: Crayfish chimneys were present at this site.

Wetland hydrology: Yes: X No:

Rationale: This site occupies a low spot in the landscape and has crayfish chimneys present. This evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PFO1A (a temporarily flooded, broad leaved deciduous, forested wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 95 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: N ½, NE ¼, SE ¼, Sec 16, R5E, T21N
Location: 716 m (2350 feet) north of US 30 and 187 m (615 feet) west of Lyndon Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	sapling/shrub	FACW-	1
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Helianthus tuberosus</i>	Jerusalem artichoke	herb	FAC	3
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Rudbeckia laciniata</i>	cutleaf coneflower	herb	FACW+	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Stachys tenuifolia</i>	slenderleaf betony	herb	OBL	5
<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)

*Non-native species

$$mCv = R/N = 35/15 = 2.33$$

$$FQI = R/(\sqrt{N}) = 35/(\sqrt{15}) = 9.04$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 96 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NE ¼, NW ¼, SW ¼, Sec 24, R5E, T21N

Location: 150 m (490 feet) north of US 30 and 494 m (1620 feet) west of Round Grove Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: No: X
Redox depletions: Yes: X No: Color: 10YR 5/2
Matrix color: 10YR 3/1
Other indicators: This site is located in a low-lying area along a stream.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic depletions within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F7 – Depleted Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 96 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NE ¼, NW ¼, SW ¼, Sec 24, R5E, T21N

Location: 150 m (490 feet) north of US 30 and 494 m (1620 feet) west of Round Grove Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.41 m (16 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, sheetflow, and occasional overflow from an unnamed tributary to the Rock River. Water leaves this site through evapotranspiration, soil infiltration, and flow into unnamed tributary to the Rock River.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site occupies a low terrace near the unnamed tributary to the Rock River and appears to receive sufficient water 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PSS1A (a temporarily flooded, broad leaved deciduous scrub-shrub palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 96 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NE ¼, NW ¼, SW ¼, Sec 24, R5E, T21N

Location: 150 m (490 feet) north of US 30 and 494 m (1620 feet) west of Round Grove Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Barbarea vulgaris</i>	winter cress	herb	FAC	*
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex stipata</i>	prickly sedge	herb	OBL	2
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Platanus occidentalis</i>	sycamore	shrub	FACW	3
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<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)

*Non-native species

$$mCv = R/N = 24/14 = 1.71$$

$$FQI = R/(\sqrt{N}) = 24/(\sqrt{14}) = 6.41$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 97 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, SE ¼, NW ¼, Sec 24, R5E, T21N
Location: 534 m (1753 feet) north of US 30 and 377 m (1240 feet) west of Round Grove Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Bromus inermis</i>	UPL	Herb

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

Hydrophytic vegetation: Yes: No: X
Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: No: X
Redox depletions: Yes: X No: Color: 10YR 5/2
Matrix color: 10YR 3/1
Other indicators: This site is located in a low-lying area along a stream.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic concentrations and depletions within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F7 – Depleted Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 97 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: NW ¼, SE ¼, NW ¼, Sec 24, R5E, T21N

Location: 534 m (1753 feet) north of US 30 and 377 m (1240 feet) west of Round Grove Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.61 m (24 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: No: X

Rationale: This site is upland and highly sloping towards the unnamed tributary to the Rock River Field. Field evidence indicates that this site is not 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 for decision: Based on the absence of dominant hydrophytic vegetation and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PSS1A (a temporarily flooded, broad leaved deciduous scrub-shrub palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 97 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: NW ¼, SE ¼, NW ¼, Sec 24, R5E, T21N
Location: 534 m (1753 feet) north of US 30 and 377 m (1240 feet) west of Round Grove Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Crataegus mollis</i>	downy hawthorn	tree	FACW-	2
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 4/4 = 1

FQI = R/(√N) = 4/(√4) = 2

ROUTINE ON-SITE WETLAND DETERMINATION

Site 98 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: SW ¼, NW ¼, NW ¼, Sec 18, R6E, T21N and SW ¼, NE ¼, NE ¼, Sec 13, R5E, T21N

Location: Directly on the east and west sides of Yorktown Road, 335 m (1100 feet) south of Hazel Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Seaton silt loam, revised to undetermined.

On Whiteside County hydric soils list?	Yes:	No:	Undet.: X
Is the soil a histosol?	Yes:	No:	X
Histic epipedon present?	Yes:	No:	X
Redox concentrations:	Yes: X	No:	Color: 10YR 4/6
Redox depletions:	Yes: X	No:	Color: 10YR 6/2
Matrix color: 10YR 4/1			

Other indicators: The site is located in a low-lying area along a stream.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations and depletions within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 98 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: SW ¼, NW ¼, NW ¼, Sec 18, R6E, T21N and SW ¼, NE ¼, NE ¼, Sec 13, R5E, T21N

Location: Directly on the east and west sides of Yorktown Road, 335 m (1100 feet) south of Hazel Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.15 m (6 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, occasional overflow from a tributary to Deer Creek, and sheetflow. Water leaves this site through evapotranspiration flow into a tributary to Deer Creek, and soil infiltration.

Other field evidence observed: Driftlines were present at this site.

Wetland hydrology: Yes: X No:

Rationale: This site's low position on the landscape and close proximity to a tributary of Deer Creek combined with the driftlines present 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 98 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: SW ¼, NW ¼, NW ¼, Sec 18, R6E, T21N and SW ¼, NE ¼, NE ¼, Sec 13, R5E, T21N

Location: Directly on the east and west sides of Yorktown Road, 335 m (1100 feet) south of Hazel Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Parthenocissus quinquefolia</i>	Virginia creeper	vine	FAC-	2
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Scirpus tabernaemontanii</i>	great bulrush	herb	OBL	4
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Vitis riparia</i>	riverbank grape	vine	FACW-	2

†Coefficient of Conservatism (Taft *et al.* 1997)

$$mCv = R/N = 19/8 = 2.38$$

*Non-native species

$$FQI = R/(\sqrt{N}) = 19/(\sqrt{8}) = 6.72$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 99 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: S ½, SW ¼, SE ¼, Sec 12, R5E, T21N
Location: 3 m (11 feet) south of Hazel Road and 582 m (1911 feet) west of Yorktown Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Helianthus grosseserratus</i>	FACW-	herb
<i>Carex trichocarpa</i>	OBL	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Greenbush silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 4/6
Redox depletions: Yes: X No: Color: 10YR 5/2
Matrix color: N 4/0

Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic concentrations and depletions within a gleyed matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F2 – Loamy Gleyed Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 99 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: S ½, SW ¼, SE ¼, Sec 12, R5E, T21N
Location: 3 m (11 feet) south of Hazel Road and 582 m (1911 feet) west of Yorktown Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: At or near surface
Overview of hydrological flow through the system: Water enters this site through precipitation, runoff from adjacent impervious surfaces, and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: X No:
Rationale: This site occupies a low spot in the landscape and receives runoff from the adjacent road. This evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 99 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: S ½, SW ¼, SE ¼, Sec 12, R5E, T21N
Location: 3 m (11 feet) south of Hazel Road and 582 m (1911 feet) west of Yorktown Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cynanchum laeve</i>	blue vine	herb	FAC	1
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Parthenocissus quinquefolia</i>	Virginia creeper	vine	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Scirpus fluviatilis</i>	river bulrush	herb	OBL	3
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 23/9 = 2.56

FQI = R/(√N) = 23/(√9) = 7.67

ROUTINE ON-SITE WETLAND DETERMINATION

Site 100 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: SE ¼, SE ¼, SW ¼, Sec 7, R6E, T21N

Location: 15 m (50 feet) north of Hazel Road and 686 m (2250 feet) east of Yorktown Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Carex stipata</i>	OBL	herb
<i>Carex stricta</i>	OBL	herb
<i>Eleocharis erythropoda</i>	OBL	herb
<i>Phalaris arundinacea</i>	FACW+	herb

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Greenbush silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 4/6
Redox depletions: Yes: X No: Color: 10YR 6/1
Matrix color: N 2.5/0

Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations and depletions within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators F6 – Redox Dark Surface and F7 – Depleted Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 100 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: SE ¼, SE ¼, SW ¼, Sec 7, R6E, T21N
Location: 15 m (50 feet) north of Hazel Road and 686 m (2250 feet) east of Yorktown Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: At or near surface

Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from an unnamed tributary to Deer Creek, and sheetflow. Water leaves this site through evapotranspiration, flow into an unnamed tributary to Deer Creek, and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site occupies a low spot in the landscape and appears to receive significant water from the adjacent unnamed tributary to Deer Creek. Field evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 100 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: SE ¼, SE ¼, SW ¼, Sec 7, R6E, T21N
Location: 15 m (50 feet) north of Hazel Road and 686 m (2250 feet) east of Yorktown Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Carex stipata</i>	prickly sedge	herb	OBL	2
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Eleocharis erythropoda</i>	red-rooted spike rush	herb	OBL	3
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Erigeron philadelphicus</i>	marsh fleabane	herb	FACW	3
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	*
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Ranunculus sceleratus</i>	cursed crowfoot	herb	OBL	3
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Trifolium repens</i>	white clover	herb	FACU+	*
<i>Veronica peregrina</i>	purslane speedwell	herb	FACW+	0

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 53/22 = 2.41

FQI = R/(√N) = 53/(√22) = 11.3

ROUTINE ON-SITE WETLAND DETERMINATION

Site 101 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/30/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W 2/3 Sec 18, R6E, T21N and NW ¼ Sec 19, R6E, T 21N

Location: A series of wetlands along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Acer negundo</i>	FACW-	herb, tree

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/6
Redox depletions: Yes: No: X
Matrix color: 10YR 5/2
Other indicators: This site is located in a low-lying area along a stream.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Sawmill silty clay loam as a Cumulic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A11 – Depleted Below Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 101 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/30/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W 2/3 Sec 18, R6E, T21N and NW ¼ Sec 19, R6E, T 21N

Location: A series of wetlands along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.36 m (14 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from an unnamed tributary to Deer Creek, and sheetflow. Water leaves this site through evapotranspiration, flow into an unnamed tributary to Deer Creek, and soil infiltration.

Other field evidence observed: Driftlines were present at this site.

Wetland hydrology: Yes: X No:

Rationale: This site's low landscape position and the presence of driftlines 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMA (a temporarily flooded, emergent, palustrine, wetland) and a PFO1A (a temporarily flooded, broad leaved deciduous, forested wetland).

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 101 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/30/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W 2/3 Sec 18, R6E, T21N and NW ¼ Sec 19, R6E, T 21N

Location: A series of wetlands along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Arctium minus</i>	common burdock	herb	UPL	*
<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>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Gleditsia triacanthos</i>	honey locust	tree	FAC	2
<i>Hackelia virginiana</i>	stickseed	herb	FAC-	1
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Juglans nigra</i>	black walnut	tree	FACU	4
<i>Lactuca floridana</i>	blue lettuce	herb	FAC-	4
<i>Osmorhiza longistylis</i>	anise-root	herb	FACU-	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Stellaria media</i>	common chickweed	herb	FACU	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Vitis riparia</i>	riverbank grape	vine	FACW-	2

†Coefficient of Conservatism (Taft *et al.* 1997)

$$mCv = R/N = 43/17 = 2.53$$

*Non-native species

$$FQI = R/(\sqrt{N}) = 43/(\sqrt{17}) = 10.43$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 102 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: SW ¼, NE ¼, NW ¼, Sec 19, R6E, T21N

Location: A series of non-wet sites along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Bromus inermis</i>	UPL	herb
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Acer negundo</i>	FACW-	tree

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 66%

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: Mapped as Orion silt loam.

On Whiteside 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
Redox depletions: Yes: No: X
Matrix color: 10YR 4/3
Other indicators: None

Hydric soils: Yes: No: X

Rationale: The NRCS classifies Orion silt loam as an Aquic Udifluent that is somewhat poorly drained. This soil lacks both a low chroma matrix and redoximorphic concentrations. Therefore, this site does not have hydric soils.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 102 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Non-native grassland
Legal Description: SW ¼, NE ¼, NW ¼, Sec 19, R6E, T21N
Location: A series of non-wet sites along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: > 0.61 m (> 24 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration, flow into an unnamed tributary to Deer Creek, and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: No: X
Rationale: This site occupies a series of upland and sloping areas along an unnamed tributary to Deer Creek. These sites all receive little or no water from overflow and are likely rapidly drained by flow into the unnamed tributary. This evidence indicates that this site is not 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 for decision: Based on the absence of hydric soils and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PEMA (a temporarily flooded, emergent, palustrine, wetland) and a PFO1A (a temporarily flooded, broad leaved deciduous, forested wetland).

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 102 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Non-native grassland

Legal Description: SW ¼, NE ¼, NW ¼, Sec 19, R6E, T21N

Location: A series of non-wet sites along an unnamed tributary to Deer Creek between Yorktown Road to the west, Blue Goose Road to the east, Hazel Road to the North, and US 30 to the South.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Galium aparine</i>	annual bedstraw	herb	FACU	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Prunus serotina</i>	wild black cherry	tree	FACU	1
<i>Quercus macrocarpa</i>	burr oak	tree	FAC-	5
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Sanicula gregaria</i>	common snakeroot	herb	FAC+	2
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Tilia americana</i>	american linden	tree	FACU	5
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$mCv = R/N = 24/10 = 2.4$

$FQI = R/(\sqrt{N}) = 24/(\sqrt{10}) = 7.59$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 103 (page 1 of 4)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: E ½, SE ¼, SW ¼, Sec 18, R6E, T21N
Location: 1387 m (4550 feet) north of US 30 and 618 m (2127 feet) east of Yorktown Road.

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

VEGETATION

Dominant Plant Species **Indicator Status** **Stratum**
Carex stricta OBL herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Lena muck.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: X No:
Histic epipedon present? Yes: X No:
Redox concentrations: Yes: X No: Color: 10YR 4/6
Redox depletions: Yes: No: X
Matrix color: N 2.5/0
Other indicators: This site is located in a depressional area surrounded by uplands.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Lena muck as a Typic Haplosaprist that is very poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A1 – Histosol and A2 – Histic Epipedon.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 103 (page 2 of 4)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: E ½, SE ¼, SW ¼, Sec 18, R6E, T21N
Location: 1387 m (4550 feet) north of US 30 and 618 m (2127 feet) east of Yorktown Road.

HYDROLOGY

Inundated: Yes Depth of standing water: up to about 1.0 m (39 in)

Depth to saturated soil: At surface

Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from an unnamed tributary to Deer Creek, seepage from an adjacent hillside, and sheetflow. Water leaves this site through evapotranspiration, flow into an unnamed tributary to Deer Creek, and soil infiltration.

Other field evidence observed: Crayfish chimneys were present at this site.

Wetland hydrology: Yes: X No:

Rationale: This site was inundated at the time of the survey and receives significant hydrologic inputs 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 103 (page 3 of 4)

Field Investigators: Zylka, Draheim, Wilm

Date: 5/29/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: E ½, SE ¼, SW ¼, Sec 18, R6E, T21N

Location: 1387 m (4550 feet) north of US 30 and 618 m (2127 feet) east of Yorktown Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Anemone canadensis</i>	meadow anemone	herb	FACW	4
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Apios americana</i>	groundnut	herb	FACW	4
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster novae-angliae</i>	New England aster	herb	FACW	4
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Bidens aristosa</i>	swamp marigold	herb	FACW	1
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Caltha palustris</i>	cowslip	herb	OBL	7
<i>Cardamine bulbosa</i>	bulb bittercress	herb	OBL	5
<i>Carex bebbii</i>	beautiful sedge	herb	OBL	8
<i>Carex hystricina</i>	bottlebrush sedge	herb	OBL	6
<i>Carex interior</i>	inland sedge	herb	OBL	8
<i>Carex lacustris</i>	river sedge	herb	OBL	6
<i>Carex lanuginosa</i>	wooly sedge	herb	OBL	4
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Carex suberecta</i>	sedge	herb	OBL	7
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Chelone glabra</i>	white turtlehead	herb	OBL	7
<i>Cyperus esculentus</i>	yellow nut-sedge	herb	FACW	0
<i>Eleocharis erythropoda</i>	red-rooted spike rush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Erigeron philadelphicus</i>	marsh fleabane	herb	FACW	3
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helenium autumnale</i>	autumn sneezeweed	herb	FACW+	3
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2

Continued on next page...

ROUTINE ON-SITE WETLAND DETERMINATION

Site 103 (page 4 of 4)

Field Investigators: Zylka, Draheim, Wilm **Date:** 5/29/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: E ½, SE ¼, SW ¼, Sec 18, R6E, T21N
Location: 1387 m (4550 feet) north of US 30 and 618 m (2127 feet) east of Yorktown Road.

SPECIES LIST (continued)

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lemna minor</i>	common duckweed	herb	OBL	3
<i>Lobelia siphilitica</i>	blue cardinal-flower	herb	FACW+	4
<i>Muhlenbergia mexicana</i>	leafy satin grass	herb	FACW	4
<i>Pedicularis lanceolata</i>	swamp wood betony	herb	FACW+	9
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Pycnanthemum virginianum</i>	common mountain mint	herb	FACW+	5
<i>Saxifraga pensylvanica</i>	swamp saxifrage	herb	OBL	10
<i>Sicyos angulatus</i>	bur cucumber	vine	FACW-	3
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Sphenopholis obtusata</i>	prairie wedge grass	herb	FAC	5
<i>Stachys palustris</i>	woundwort	herb	OBL	5
<i>Thelypteris palustris pubescens</i>	marsh fern	herb	FACW+	7
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Wolffia columbiana</i>	common watermeal	herb	OBL	5

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 210/50 = 4.2

FQI = R/(√N) = 210/(√50) = 29.7

ROUTINE ON-SITE WETLAND DETERMINATION

Site 104 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: S ½ , SW ¼, SE ¼, Sec 7, R5E, T21N

Location: 164 m (540 feet) southwest of the intersection of Norrish Road and Crosby Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Populous deltoides</i>	FAC+	tree

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Pits, Quarries – Orthents complex, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/6
Redox depletions: Yes: No: X

Matrix color: 10YR 5/2 over fill material

Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 104 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: S ½, SW ¼, SE ¼, Sec 7, R5E, T21N

Location: (540 feet) southwest of the intersection of Norrish Road and Crosby Road.

HYDROLOGY

Inundated: Yes Depth of standing water: 0.3 m (12 in)

Depth to saturated soil: At or near surface

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site is lower than the surrounding landscape and has no visible hydrologic outputs. This evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PUBGX (an excavated intermittently exposed unconsolidated bottom palustrine wetland) and a PABF (a semipermanently flooded aquatic bed palustrine wetland).

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ROUTINE ON-SITE WETLAND DETERMINATION

Site 104 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/3/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forested wetland
Legal Description: S ½ , SW ¼, SE ¼, Sec 7, R5E, T21N
Location: (540 feet) southwest of the intersection of Norrish Road and Crosby Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acalypha rhomboidea</i>	three-seeded mercury	herb	FACU	0
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Alisma plantago-aquatica</i>	broad-leaf water-plantain	herb	OBL	2
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Cyperus strigosus</i>	straw-colored flatsedge	herb	FACW	0
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis obtusa</i>	blunt spike rush	herb	OBL	2
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Lemna minor</i>	common duckweed	herb	OBL	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Vitis riparia</i>	riverbank grape	vine	FACW-	2

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

mCv = R/N = 19/14 = 1.36

FQI = R/(√N) = 19/(√14) = 5.08

ROUTINE ON-SITE WETLAND DETERMINATION

Site 105 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: NE ¼, NW ¼, NE ¼, Sec 7, R5E, T21N and S ½, SW ¼, SE ¼, Sec 6, R5E, T21N

Location: 286 m (950 feet) east of the intersection of Crosby Road and Damen Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.56 m (22 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site is a bowl in the landscape. Water is likely to remain at this site for extended periods of time. This evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 105 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: NE ¼, NW ¼, NE ¼, Sec 7, R5E, T21N and S ½, SW ¼, SE ¼, Sec 6, R5E, T21N

Location: 286 m (950 feet) east of the intersection of Crosby Road and Damen Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Alliaria petiolata</i>	garlic mustard	herb	FAC	*
<i>Aster ontarionis</i>	ontario aster	herb	FAC	4
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Crataegus mollis</i>	downy hawthorn	tree	FACW-	2
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Elymus virginicus</i>	Virginia wild rye	herb	FACW-	4
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Gleditsia triacanthos</i>	honey locust	tree	FAC	2
<i>Laportea canadensis</i>	wood nettle	herb	FACW	2
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Sanicula gregaria</i>	common snakeroot	herb	FAC+	2
<i>Ulmus americana</i>	American elm	herb	FACW-	5
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft *et al.* 1997)

$$mCv = R/N = 33/13 = 2.54$$

*Non-native species

$$FQI = R/(\sqrt{N}) = 33/(\sqrt{13}) = 9.15$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 106 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Marsh

Legal Description: S ½, SW ¼, SE ¼, Sec 5, R5E, T21N and N ½, NW ¼, NE ¼, Sec 8, R5E, T21N

Location: 201 m (660 feet) north of Norrish Road and 496 m (1627 feet) west of Bishop Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Leersia oryzoides</i>	OBL	herb
<i>Typha angustifolia</i>	OBL	herb

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Seaton silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/4
Redox depletions: Yes: No: X
Matrix color: 2.5Y 4/2

Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 106 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/3/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Marsh
Legal Description: S ½, SW ¼, SE ¼, Sec 5, R5E, T21N and N ½, NW ¼, NE ¼, Sec 8, R5E, T21N
Location: 201 m (660 feet) north of Norrish Road and 496 m (1627 feet) west of Bishop Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: 0.41 m (16 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: X No:
Rationale: This site occupies a low spot on the landscape and this evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 106 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Marsh

Legal Description: S ½, SW ¼, SE ¼, Sec 5, R5E, T21N and N ½, NW ¼, NE ¼, Sec 8, R5E, T21N

Location: 201 m (660 feet) north of Norrish Road and 496 m (1627 feet) west of Bishop Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	sapling	FACW-	1
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum lapathifolium</i>	curttop lady's thumb	herb	FACW+	0
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Stellaria media</i>	common chickweed	herb	FACU	*
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Verbena urticifolia</i>	white vervain	herb	FAC+	3

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 30/16 = 1.88$$

$$FQI = R/(\sqrt{N}) = 30/(\sqrt{16}) = 7.5$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 107 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W ½, SW ¼, NW ¼, Sec 20, R6E, T21N

Location: 32 m (105 feet) east of Blue Goose Road and 594 m (1950 feet) north of US 30

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Polygonum hydropiper</i>	OBL	herb
<i>Echinochloa muricata</i>	OBL	herb
<i>Agrostis alba</i>	FACW	herb

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/6
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1

Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:

Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 107 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W ½, SW ¼, NW ¼, Sec 20, R6E, T21N

Location: 32 m (105 feet) east of Blue Goose Road and 594 m (1950 feet) north of US 30

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.41 m (16 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site is in a low lying area surrounded by uplands. Field evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 107 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: W ½, SW ¼, NW ¼, Sec 20, R6E, T21N

Location: 32 m (105 feet) east of Blue Goose Road and 594 m (1950 feet) north of US 30

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Bidens connata</i>	purplestem beggar's ticks	herb	OBL	2
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Lemna minor</i>	common duckweed	herb	OBL	3
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum hydropiper</i>	common smartweed	herb	OBL	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3

†Coefficient of Conservatism (Taft *et al.* 1997)

$$mCv = R/N = 17/9 = 1.89$$

*Non-native species

$$FQI = R/(\sqrt{N}) = 17/(\sqrt{9}) = 5.67$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 108 (page 1 of 4)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/3/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: SW ¼, SE ¼, WE ¼, Sec 5, R5E, T21N
Location: 1094 m (3590 feet) west of Bishop Road and 523 m (1715 feet) north of Norrish Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Carex stricta</i>	OBL	herb
<i>Impatiens capensis</i>	FACW	herb

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

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Seaton silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/6
Redox depletions: Yes: No: X

Matrix color: 10YR 5/2

Other indicators: This site is located along a groundwater seep.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 108 (page 2 of 4)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/3/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Sedge meadow
Legal Description: SW ¼, SE ¼, WE ¼, Sec 5, R5E, T21N
Location: 1094 m (3590 feet) west of Bishop Road and 523 m (1715 feet) north of Norrish Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: 0.10 m (4 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: X No:
Rationale: This site is significantly lower than the surrounding landscape. Field evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 108 (page 3 of 4)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: SW ¼, SE ¼, WE ¼, Sec 5, R5E, T21N

Location: 1094 m (3590 feet) west of Bishop Road and 523 m (1715 feet) north of Norrish Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Apios americana</i>	groundnut	herb	FACW	4
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster lateriflorus</i>	side-flowered aster	herb	FACW-	2
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Aster umbellatus</i>	flattop aster	herb	FACW	8
<i>Calla palustris</i>	water arum	herb	OBL	10
<i>Carex hystricina</i>	bottlebrush sedge	herb	OBL	6
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Chelone glabra</i>	white turtlehead	herb	OBL	7
<i>Cinna arundinacea</i>	stout wood reed	herb	FACW	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lemna minor</i>	common duckweed	herb	OBL	3
<i>Lobelia siphilitica</i>	blue cardinal-flower	herb	FACW+	4
<i>Lonicera maackii</i>	Amur honeysuckle	shrub	UPL	*
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Pedicularis canadensis</i>	lousewort	herb	FACU+	7
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Pycnanthemum virginianum</i>	common mountain mint	herb	FACW+	5
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Rumex altissimus</i>	pale dock	herb	FACW-	2
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Scirpus atrovirens</i>	dark green bulrush	herb	OBL	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Sphenopholis obtusata</i>	prairie wedge grass	herb	FAC	5
<i>Thelypteris palustris pubescens</i>	marsh fern	herb	FACW+	7

Continued on next page...

ROUTINE ON-SITE WETLAND DETERMINATION

Site 108 (page 4 of 4)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/3/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Sedge meadow

Legal Description: SW ¼, SE ¼, WE ¼, Sec 5, R5E, T21N

Location: 1094 m (3590 feet) west of Bishop Road and 523 m (1715 feet) north of Norrish Road.

SPECIES LIST (continued)

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbesina alternifolia</i>	wingstem	herb	FACW	4
<i>Wolffia columbiana</i>	common watermeal	herb	OBL	5

†Coefficient of Conservatism (Taft *et al.* 1997) $mCv = R/N = 157/36 = 4.36$
 *Non-native species $FQI = R/(\sqrt{N}) = 157/(\sqrt{36}) = 26.17$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 109 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NW ¼, NW ¼, NE ¼, Sec 7, R6E, T21N

Location: 6 m (21 feet) south of Holly Road and 717 m (2351 feet) west of Blue Goose Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb

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

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Fayette silt loam, revised to Drummer silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/4
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1
Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:

Rationale: The NRCS classifies Drummer silty clay loam as a Typic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A12 – Thick Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 109 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NW ¼, NW ¼, NE ¼, Sec 7, R6E, T21N

Location: 6 m (21 feet) south of Holly Road and 717 m (2351 feet) west of Blue Goose Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.15 m (6 in)

Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site occupies a low spot in the landscape. Field evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 109 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: NW ¼, NW ¼, NE ¼, Sec 7, R6E, T21N

Location: 6 m (21 feet) south of Holly Road and 717 m (2351 feet) west of Blue Goose Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Blephilia hirsuta</i>	wood mint	herb	FACU-	5
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Scirpus atrovirens</i>	dark green bulrush	herb	OBL	4
<i>Scirpus tabernaemontanii</i>	great bulrush	herb	OBL	4
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 52/17 = 3.06$$

$$FQI = R/(\sqrt{N}) = 52/(\sqrt{17}) = 12.61$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 110 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: E ½, Sec 17, R6E, T21N

Location: A series of wetlands along Deer Creek between Prairie Center Road to the south, Hazel Road to the north, Blue Goose Road to the west, and Habben Road to the east.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Phalaris arundinacea</i>	FACW+	herb
<i>Helianthus grosseserratus</i>	FACW-	herb

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

Hydrophytic vegetation: Yes: No:

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

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.:
Is the soil a histosol? Yes: No:
Histic epipedon present? Yes: No:
Redox concentrations: Yes: No: Color: 10YR 4/4
Redox depletions: Yes: No:
Matrix color: 10YR 4/2

Other indicators: This site is located in a low-lying area along a ditch.

Hydric soils: Yes: No:

Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 110 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: E ½, Sec 17, R6E, T21N

Location: A series of wetlands along Deer Creek between Prairie Center Road to the south, Hazel Road to the north, Blue Goose Road to the west, and Habben Road to the east.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.30 m (12 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from Deer Creek, and sheetflow. Water leaves this site through evapotranspiration, runoff into Deer Creek, and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site receives significant water both from adjacent uplands and from periodic overflows of Deer Creek. This evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 110 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/4/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Wet meadow

Legal Description: E ½, Sec 17, R6E, T21N

Location: A series of wetlands along Deer Creek between Prairie Center Road to the south, Hazel Road to the north, Blue Goose Road to the west, and Habben Road to the east.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Arctium minus</i>	common burdock	herb	UPL	*
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster novae-angliae</i>	New England aster	herb	FACW	4
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Calystegia sepium</i>	American bindweed	herb	FAC	1
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Chenopodium album</i>	lamb's quarters	herb	FAC-	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Echinocystis lobata</i>	wild balsam-apple	vine	FACW-	4
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lactuca canadensis</i>	canada lettuce	herb	FACU+	1
<i>Pastinaca sativa</i>	parsnip	herb	UPL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Teucrium canadense</i>	American germander	herb	FACW-	3
<i>Urtica dioica</i>	stinging nettle	herb	FAC+	2
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3

†Coefficient of Conservatism (Taft *et al.* 1997)

mCv = R/N = 52/20 = 2.6

*Non-native species

FQI = R/(√N) = 52/(√20) = 11.63

ROUTINE ON-SITE WETLAND DETERMINATION

Site 111 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/5/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: SW ¼, SW ¼, NE ¼, Sec 17, R6E, T21N

Location: 626 m (2055 feet) south of Hazel Road and 968 m (3175 feet) east of Blue Goose Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Osmorhiza claytonia</i>	FACU-	herb
<i>Phalaris arundinacea</i>	FACW	herb
<i>Morus alba</i>	FAC	tree

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 66%

Hydrophytic vegetation: Yes: X No:

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

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to Drummer silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 5/4
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1

Other indicators: This site is located in a low-lying area surrounded by uplands.

Hydric soils: Yes: X No:

Rationale: The NRCS classifies Drummer silty clay loam as a Typic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicator A12 – Thick Dark Surface.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 111 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forested wetland
Legal Description: SW ¼, SW ¼, NE ¼, Sec 17, R6E, T21N
Location: 626 m (2055 feet) south of Hazel Road and 968 m (3175 feet) east of Blue Goose Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: 0.51 m (20 in)
Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from Deer Creek, and sheetflow. Water leaves this site through evapotranspiration, runoff into Deer Creek, and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: No:
Rationale: This site receives significant water both from adjacent uplands and from periodic overflows of Deer Creek. This evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 111 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/5/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forested wetland

Legal Description: SW ¼, SW ¼, NE ¼, Sec 17, R6E, T21N

Location: 626 m (2055 feet) south of Hazel Road and 968 m (3175 feet) east of Blue Goose Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Echinocystis lobata</i>	wild balsam-apple	vine	FACW-	4
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Hackelia virginiana</i>	stickseed	herb	FAC-	1
<i>Morus alba</i>	white mulberry	tree	FAC	*
<i>Osmorhiza claytonii</i>	sweet cicely	herb	FACU-	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Prunus serotina</i>	wild black cherry	tree	FACU	1
<i>Ribes missouriense</i>	Missouri gooseberry	shrub	UPL	2
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rubus occidentalis</i>	black raspberry	shrub	UPL	2
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Sambucus canadensis</i>	common elder	shrub	FACW-	2
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 22/12 = 1.83$$

$$FQI = R/(\sqrt{N}) = 22/(\sqrt{12}) = 6.35$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 112 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forest

Legal Description: SE ¼, SW ¼, NE ¼, Sec 8, R6E, T21N

Location: 724 m (2375 feet) south of Holly Road and 1097 m (3600 feet) east of Blue Goose Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Sanicula gregaria</i>	FAC+	herb
<i>Ribes missouriense</i>	UPL	shrub
<i>Celtis occidentalis</i>	FAC-	sapling/tree
<i>Acer saccharinum</i>	FACW	tree

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

Hydrophytic vegetation: Yes: No: X
Rationale: Only 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Seaton silt loam.

On Whiteside 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
Redox depletions: Yes: No: X
Matrix color: 10YR 4/3
Other indicators: None

Hydric soils: Yes: No: X
Rationale: The NRCS classifies Seaton silt loam as a Typic Hapludalf that is well drained. This soil lacks both a low chroma matrix and redoximorphic concentrations. Therefore, this site does not have hydric soils.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 112 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Forest
Legal Description: SE ¼, SW ¼, NE ¼, Sec 8, R6E, T21N
Location: 724 m (2375 feet) south of Holly Road and 1097 m (3600 feet) east of Blue Goose Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: > 0.61 m (> 24 in)
Overview of hydrological flow through the system: Water enters this site through precipitation and sheetflow. Water leaves this site through evapotranspiration and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: No: X
Rationale: This site lacks any evidence to indicate that it 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 for decision: Based on the absence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is not a wetland. The NWI coded this site as a PFO1A (a temporarily flooded, broad leaved deciduous, forested wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 112 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/5/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Forest

Legal Description: SE ¼, SW ¼, NE ¼, Sec 8, R6E, T21N

Location: 724 m (2375 feet) south of Holly Road and 1097 m (3600 feet) east of Blue Goose Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Celtis occidentalis</i>	hackberry	tree/sapling	FAC-	3
<i>Cryptotaenia canadensis</i>	honestwort	herb	FAC	1
<i>Eupatorium rugosum</i>	white snakeroot	herb	FACU	2
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Leersia virginica</i>	white grass	herb	FACW	4
<i>Osmorhiza claytonii</i>	sweet cicely	herb	FACU-	3
<i>Parthenocissus quinquefolia</i>	Virginia creeper	vine	FAC-	2
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Prunus serotina</i>	wild black cherry	tree	FACU	1
<i>Ribes missouriense</i>	Missouri gooseberry	shrub	UPL	2
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Sanguinaria canadensis</i>	bloodroot	herb	FACU-	5
<i>Sanicula gregaria</i>	common snakeroot	herb	FAC+	2
<i>Smilax hispida</i>	bristly greenbrier	vine	FAC	3
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	vine	FACW-	2

†Coefficient of Conservatism (Taft *et al.* 1997)

$$mCv = R/N = 37/17 = 2.18$$

*Non-native species

$$FQI = R/(\sqrt{N}) = 37/(\sqrt{17}) = 8.97$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 113 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: N ½, NE ¼, Sec 10, R5E, T21N
Location: 248 m (815 feet) south of Holly road and 1006 m (3300 feet) east of Lyndon Road.

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

VEGETATION

Dominant Plant Species **Indicator Status** **Stratum**
Carex trichocarpa OBL herb
Phalaris arundinacea FACW+ herb
Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 100%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: Mapped as Sawmill silty clay loam.

On Whiteside County hydric soils list? Yes: X No:
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 10YR 4/4
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1
Other indicators: This site is located in a low-lying area along a ditch.

Hydric soils: Yes: X No:
Rationale: The NRCS classifies Drummer silty clay loam as a Typic Endoaquoll that is poorly drained. This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 113 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: N ½, NE ¼, Sec 10, R5E, T21N
Location: 248 m (815 feet) south of Holly road and 1006 m (3300 feet) east of Lyndon Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A
Depth to saturated soil: 0.51 m (20 in)
Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from French Creek, and sheetflow. Water leaves this site through evapotranspiration, runoff into French Creek, and soil infiltration.
Other field evidence observed: None.

Wetland hydrology: Yes: X No:
Rationale: This site is in a low lying spot on the landscape and in position to receive overflow from French Creek. This evidence indicates 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: X No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI did not recognize this site.

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION

Site 113 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Wet meadow
Legal Description: N ½, NE ¼, Sec 10, R5E, T21N
Location: 248 m (815 feet) south of Holly road and 1006 m (3300 feet) east of Lyndon Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Angelica atropurpurea</i>	angelica	herb	OBL	6
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster novae-angliae</i>	New England aster	herb	FACW	4
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Bromus inermis</i>	awnless brome grass	herb	UPL	*
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lactuca canadensis</i>	canada lettuce	herb	FACU+	1
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Verbena urticifolia</i>	white vervian	herb	FAC+	3

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 47/14 = 3.36$$

$$FQI = R/(\sqrt{N}) = 47/(\sqrt{14}) = 12.56$$

ROUTINE ON-SITE WETLAND DETERMINATION

Site 114 (page 1 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Marsh
Legal Description: SE ¼, SE ¼, SW ¼, Sec 2, R5E, T21N
Location: Directly north of Holly Road and 1661 m (5451 feet) west of Round Grove Road.

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

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
<i>Carex sp.</i>	---	herb
<i>Eupatorium maculatum</i>	OBL	herb
<i>Sagittaria latifolia</i>	OBL	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: At least 66%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped as Orion silt loam, revised to undetermined.

On Whiteside County hydric soils list? Yes: No: Undet.: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No: Color: 7.5YR 4/4
Redox depletions: Yes: No: X
Matrix color: N 4/0

Other indicators: This site is located in a low-lying area along a drainageway.

Hydric soils: Yes: X No:
Rationale: This soil contains redoximorphic concentrations within a low chroma matrix, which indicates saturated or reduced conditions for an extended duration during the growing season. Therefore, the soil at this site meets the hydric soil criterion. This soil meets NRCS hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

ROUTINE ON-SITE WETLAND DETERMINATION

Site 114 (page 2 of 3)

Field Investigators: Zylka, Draheim, Wilm

Date: 9/5/2008

Project Name: U.S. 30

State: Illinois **County:** Whiteside **Applicant:** IDOT District 2

Site Name: Marsh

Legal Description: SE ¼, SE ¼, SW ¼, Sec 2, R5E, T21N

Location: Directly north of Holly Road and 1661 m (5451 feet) west of Round Grove Road.

HYDROLOGY

Inundated: No Depth of standing water: N/A

Depth to saturated soil: 0.10 m (4 in)

Overview of hydrological flow through the system: Water enters this site through precipitation, overflow from French Creek, and sheetflow. Water leaves this site through evapotranspiration, runoff into French Creek, and soil infiltration.

Other field evidence observed: None.

Wetland hydrology: Yes: X No:

Rationale: This site is in a low lying spot on the landscape and in position to receive overflow from French Creek. This evidence indicates 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: X No:

Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology, we determined that this site is a wetland. The NWI coded this site as a PEMC (a seasonally flooded, emergent, palustrine wetland).

Determined by: Jason Zylka, Brian Wilm (vegetation, GPS, and hydrology)
Ian Draheim (soils and hydrology)
Brad Zercher (GIS)
Illinois Natural History Survey
1816 S. Oak Street
Champaign, Illinois 61820
(217) 265-7888 (Zylka)

ROUTINE ON-SITE WETLAND DETERMINATION

Site 114 (page 3 of 3)

Field Investigators: Zylka, Draheim, Wilm **Date:** 9/5/2008
Project Name: U.S. 30
State: Illinois **County:** Whiteside **Applicant:** IDOT District 2
Site Name: Marsh
Legal Description: SE ¼, SE ¼, SW ¼, Sec 2, R5E, T21N
Location: Directly north of Holly Road and 1661 m (5451 feet) west of Round Grove Road.

SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC†
<i>Acalypha rhomboidea</i>	three-seeded mercury	herb	FACU	0
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Aster simplex</i>	panicled aster	herb	FACW	3
<i>Calla palustris</i>	water arum	herb	OBL	10
<i>Carex</i> sp.	sedge	herb	-----	--
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Eupatorium maculatum</i>	spotted joe pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Hackelia virginiana</i>	stickseed	herb	FAC-	1
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lobelia siphilitica</i>	blue cardinal-flower	herb	FACW+	4
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Ribes missouriense</i>	Missouri gooseberry	shrub	UPL	2
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Silphium perfoliatum</i>	cup plant	herb	FACW-	4
<i>Typha latifolia</i>	cattail	herb	OBL	1

†Coefficient of Conservatism (Taft *et al.* 1997)

*Non-native species

$$mCv = R/N = 49/16 = 3.06$$

$$FQI = R/(\sqrt{N}) = 49/(\sqrt{16}) = 12.25$$

APPENDIX 6-1

Photographs of mist netting sites for Indiana bats (*Myotis sodalis*) and trapping sites for Franklin's ground squirrel (*Spermophilus franklinii*) in the US 30 addendum project corridor, Whiteside County, Illinois, 2008



Site 1. Side channel of the Rock River mist netting site, Net A, in Whiteside County, Illinois, 11 and 12 August 2008.



Site 1. Side channel of the Rock River mist netting site, Net B in Whiteside County, Illinois, 11 and 12 August.



Site 2. Spring Brook mist netting site, Net A, in Whiteside County, Illinois, 5 and 6 August.



Site 2. Spring Brook mist netting site, Net B in Whiteside County, Illinois, 5 and 6 August.



Site 6. Franklin's ground squirrel trapping site north of Morrison Cemetery in Whiteside County, Illinois, 19-21 August 2008.



Site 7. Franklin's ground squirrel trapping site north of Norrish Road in Whiteside County, Illinois, 9-11 September 2008.

Appendix 7-1

Floristic Quality Data

Appendix 7-1

Site: Route 30

Locale: Tree Savanna/Dry to dry-mesic sand savanna

By: William C. Handel/John Taft

FLORISTIC QUALITY DATA	Native	127	86.4%	Adventive	20	13.6%
127 NATIVE SPECIES	Tree	9	6.1%	Tree	1	0.7%
147 Total Species	Shrub	14	9.5%	Shrub	3	2.0%
4.3 NATIVE MEAN C	W-Vine	4	2.7%	W-Vine	0	0.0%
3.7 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
48.1 NATIVE FQI	P-Forb	45	30.6%	P-Forb	4	2.7%
44.7 W/Adventives	B-Forb	7	4.8%	B-Forb	4	2.7%
3.7 NATIVE MEAN W	A-Forb	18	12.2%	A-Forb	4	2.7%
3.6 W/Adventives	P-Grass	16	10.9%	P-Grass	3	2.0%
AVG: Fac. Upland (-)	A-Grass	3	2.0%	A-Grass	1	0.7%
	P-Sedge	7	4.8%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	Sedge	0	0.0%
	Fern	4	2.7%			

C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
1 Acer negundo	-2 FACW-	Nt Tree	BOXELDER
0 ACHILLEA MILLEFOLIUM	3 FACU	Ad P-Forb	COMMON MILFOIL
4 Agastache nepetoides	3 FACU	Nt P-Forb	YELLOW GIANT HYSSOP
0 AGROPYRON SMITHII	4 FACU-	Ad P-Grass	COLORADO BLUESTEM
0 ALLIARIA PETIOLATA	0 FAC	Ad B-Forb	GARLIC MUSTARD
0 Ambrosia artemisiifolia	3 FACU	Nt A-Forb	COMMON RAGWEED
2 Ambrosia psilostachya	1 FAC-	Nt P-Forb	WESTERN RAGWEED
8 Amorpha canescens	5 UPL	Nt Shrub	LEAD PLANT
4 Androsace occidentalis	4 FACU-	Nt A-Forb	ANDROSACE
9 Anemone caroliniana	5 UPL	Nt P-Forb	CAROLINA ANEMONE
4 Antennaria neglecta	5 UPL	Nt P-Forb	CAT'S FOOT
6 Arabis glabra	5 UPL	Nt B-Forb	TOWER MUSTARD
7 Arabis lyrata	4 FACU-	Nt B-Forb	LYRE-LEAVED ROCK CRESS
9 Aristida tuberculosa	5 UPL	Nt A-Grass	BEACH THREE AWN GRASS
4 Artemisia campestris	5 UPL	Nt B-Forb	BEACH WORMWOOD
2 Artemisia ludoviciana	5 UPL	Nt P-Forb	WHITE SAGE
7 Asclepias amplexicaulis	5 UPL	Nt P-Forb	SAND MILKWEED
0 Asclepias syriaca	5 UPL	Nt P-Forb	COMMON MILKWEED
1 Asclepias verticillata	5 UPL	Nt P-Forb	HORSETAIL MILKWEED
9 Asclepias viridiflora	5 UPL	Nt P-Forb	GREEN MILKWEED
4 Asplenium platyneuron	3 FACU	Nt Fern	EBONY SPLEENWORT
0 Aster pilosus	4 FACU-	Nt P-Forb	HAIRY ASTER
7 Astragalus canadensis	-1 FAC+	Nt P-Forb	CANADIAN MILK VETCH
9 Bouteloua hirsuta	5 UPL	Nt P-Grass	HAIRY GRAMA
0 BROMUS INERMIS	5 UPL	Ad P-Grass	HUNGARIAN BROME
0 BROMUS TECTORUM	5 UPL	Ad A-Grass	CHEAT GRASS
9 Callirhoe triangulata	5 UPL	Nt P-Forb	CLUSTERED POPPY MALLOW
4 Carex brevior	0 FAC	Nt P-Sedge	PLAINS OVAL SEDGE
6 Carex meadii	4 FACU-	Nt P-Sedge	MEAD'S STIFF SEDGE
5 Carex muhlenbergii	5 UPL	Nt P-Sedge	SAND BRACED SEDGE
5 Carex pennsylvanica	5 UPL	Nt P-Sedge	PENNSYLVANIA OAK SEDGE
8 Carex tosa	5 UPL	Nt P-Sedge	SMOOTH-FRUITED OAK SEDGE
4 Carya cordiformis	0 FAC	Nt Tree	BITTERNUT HICKORY
1 Cassia fasciculata	4 FACU-	Nt A-Forb	GOLDEN CASSIA
8 Ceanothus americanus	5 UPL	Nt Shrub	NEW JERSEY TEA
2 Celastrus scandens	3 FACU	Nt W-Vine	CLIMBING BITTERSWEET
10 Chamaesyce geyeri	5 UPL	Nt A-Forb	GYERE'S SPURGE
0 Chamaesyce maculata	4 FACU-	Nt A-Forb	NODDING SPURGE
3 Cirsium discolor	5 UPL	Nt B-Forb	PASTURE THISTLE
5 Commelina erecta	5 UPL	Nt P-Forb	DAY FLOWER
0 Conyza canadensis	1 FAC-	Nt A-Forb	HORSEWEED
2 Cornus racemosa	-2 FACW-	Nt Shrub	GRAY DOGWOOD
1 Croton glandulosus v. septentrionalis	5 UPL	Nt A-Forb	SAND CROTON
3 Cycloloma atriplicifolium	3 FACU	Nt A-Forb	WINGED PIGWEED
5 Cyperus filiculmis	4 FACU-	Nt P-Sedge	SLENDER SAND SEDGE
8 Cyperus grayioides	5 UPL	Nt P-Sedge	GRAY'S SEDGE

Locale: Tree Savanna/Dry to dry-mesic sand savanna cont.

C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
5 Cyperus schweinitzii	2 FACU+	Nt P-Sedge	ROUGH SAND SEDGE
7 Descurainia pinnata	5 UPL	Nt A-Forb	TANSY MUSTARD
5 Desmodium canadense	1 FAC-	Nt P-Forb	SHOWY TICK TREFOIL
3 Draba reptans	5 UPL	Nt A-Forb	COMMON WHITLOW GRASS
0 ELAEAGNUS UMBELLATA	5 UPL	Ad Shrub	AUTUMN OLIVE
4 Elymus canadensis	1 FAC-	Nt P-Grass	CANADA WILD RYE

0	Equisetum arvense	0	FAC	Nt	Fern	COMMON HORSETAIL
3	Eragrostis spectabilis	5	UPL	Nt	P-Grass	PURPLE LOVE GRASS
2	Erigeron strigosus	1	FAC-	Nt	P-Forb	DAISY FLEABANE
1	Eupatorium serotinum	-1	FAC+	Nt	P-Forb	LATE BONESET
3	Euphorbia corollata	5	UPL	Nt	P-Forb	FLOWERING SPURGE
2	Fragaria virginiana	1	FAC-	Nt	P-Forb	WILD STRAWBERRY
5	Froelichia floridana v. campestris	5	UPL	Nt	A-Forb	COTTONWEED
0	FROELICHIA GRACILIS	5	UPL	Ad	A-Forb	COTTONWEED
0	Galium aparine	3	FACU	Nt	A-Forb	ANNUAL BEDSTRAW
2	Gnaphalium obtusifolium	5	UPL	Nt	B-Forb	OLD-FIELD BALSAM
1	Hackelia virginiana	1	FAC-	Nt	P-Forb	STICKSEED
7	Helianthemum canadense	5	UPL	Nt	P-Forb	COMMON ROCKROSE
7	Helianthus occidentalis	4	FACU-	Nt	P-Forb	WESTERN SUNFLOWER
5	Heterotheca camporum	5	UPL	Nt	P-Forb	GOLDEN ASTER
6	Hieracium longipilum	5	UPL	Nt	P-Forb	LONG-BEARDED HAWKWEED
9	Hudsonia tomentosa	5	UPL	Nt	Shrub	FALSE HEATHER
1	Juniperus virginiana	3	FACU	Nt	Tree	EASTERN RED CEDAR
0	KOCHIA SCOPARIA	4	FACU-	Ad	A-Forb	BELVEDERE SUMMER CYPRESS
7	Koeleria macrantha	5	UPL	Nt	P-Grass	JUNE GRASS
4	Krigia virginica	5	UPL	Nt	A-Forb	DWARF DANDELION
4	Leptoloma cognatum	5	UPL	Nt	P-Grass	FALL WITCH GRASS
4	Lespedeza capitata	3	FACU	Nt	P-Forb	ROUND-HEADED BUSH CLOVER
7	Liatris aspera	5	UPL	Nt	P-Forb	ROUGH BLAZING STAR
4	Linaria canadensis	5	UPL	Nt	A-Forb	BLUE TOADFLAX
6	Lithospermum canescens	5	UPL	Nt	P-Forb	HOARY PUCCOON
7	Lithospermum carolinense	5	UPL	Nt	P-Forb	HAIRY PUCCOON
0	LONICERA MORROWI	5	UPL	Ad	Shrub	MORROW'S HONEYSUCKLE
0	MELILOTUS ALBA	3	FACU	Ad	B-Forb	WHITE SWEET CLOVER
0	MELILOTUS OFFICINALIS	3	FACU	Ad	B-Forb	YELLOW SWEET CLOVER
0	MIRABILIS NYCTAGINEA	5	UPL	Ad	P-Forb	WILD FOUR O'CLOCK
0	MOLLUGO VERTICILLATA	0	FAC	Ad	A-Forb	CARPET WEED
4	Monarda fistulosa	3	FACU	Nt	P-Forb	WILD BERGAMOT
5	Monarda punctata	5	UPL	Nt	P-Forb	HORSEMINT
0	MORUS ALBA	0	FAC	Ad	Tree	WHITE MULBERRY
0	NEPETA CATARIA	1	FAC-	Ad	P-Forb	CATNIP
5	Oenothera rhombipetala	3	FACU	Nt	B-Forb	SAND PRIMROSE
8	Opuntia macrorhiza	5	UPL	Nt	Shrub	PLAINS PRICKLY-PEAR
7	Panicum depauperatum	5	UPL	Nt	P-Grass	STARVED PANIC GRASS
7	Panicum linearifolium	5	UPL	Nt	P-Grass	SLENDER-LEAVED PANIC GRASS
3	Panicum oligosanthes v. scribnerianum	3	FACU	Nt	P-Grass	SCRIBNER'S PANIC GRASS
5	Panicum villosissimum	5	UPL	Nt	P-Grass	WHITE-HAIRED PANIC GRASS
2	Parthenocissus quinquefolia	1	FAC-	Nt	W-Vine	VIRGINIA CREEPER
4	Paspalum bushii	5	UPL	Nt	P-Grass	HAIRY BEAD GRASS
8	Penstemon grandiflorus	5	UPL	Nt	P-Forb	LARGE-FLOWERED BEARD TONGUE
6	Penstemon pallidus	5	UPL	Nt	P-Forb	PALE BEARD TONGUE
7	Phlox bifida	5	UPL	Nt	P-Forb	CLEFF PHLOX
2	Physalis heterophylla	5	UPL	Nt	P-Forb	CLAMMY GROUND CHERRY
0	Physalis subglabrata	5	UPL	Nt	P-Forb	SMOOTH GROUND CHERRY
1	Phytolacca americana	1	FAC-	Nt	P-Forb	POKEWEED
9	Pinus strobus	3	FACU	Nt	Tree	WHITE PINE
0	PLANTAGO PATAGONICA v. BREVICARPA	5	UPL	Ad	A-Forb	WOOLLY PLANTAIN
0	POA PRATENSIS	1	FAC-	Ad	P-Grass	KENTUCKY BLUE GRASS
0	Poinsettia dentata	5	UPL	Nt	A-Forb	TOOTHED SPURGE
7	Polygala polygama v. obtusata	4	FACU-	Nt	B-Forb	PURPLE MILKWORT
4	Populus grandidentata	3	FACU	Nt	Tree	BIG-TOOTH ASPEN
3	Prunus americana	5	UPL	Nt	Tree	AMERICAN PLUM
8	Prunus nigra	4	FACU-	Nt	Tree	CANADA PLUM
1	Prunus serotina	3	FACU	Nt	Tree	WILD BLACK CHERRY
3	Prunus virginiana	1	FAC-	Nt	Shrub	COMMON CHOKE CHERRY
4	Ptelea trifoliata	2	FACU+	Nt	Shrub	WAFER ASH
5	Pteridium aquilinum	3	FACU	Nt	Fern	BRACKEN FERN
5	Quercus velutina	5	UPL	Nt	Tree	BLACK OAK
5	Ranunculus fascicularis	3	FACU	Nt	P-Forb	EARLY BUTTERCUP
4	Rhus aromatica	5	UPL	Nt	Shrub	AROMATIC SUMAC
1	Rhus glabra	5	UPL	Nt	Shrub	SMOOTH SUMAC

Locale: Tree Savanna/Dry to dry-mesic sand savanna cont.

C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME	
2	Ribes missouriense	5	UPL	Nt	Shrub	MISSOURI GOOSEBERRY
4	Rosa carolina	4	FACU-	Nt	Shrub	PASTURE ROSE
0	ROSA MULTIFLORA	3	FACU	Ad	Shrub	JAPANESE ROSE
2	Rubus flagellaris	4	FACU-	Nt	Shrub	COMMON DEWBERRY
2	Rubus occidentalis	3	FACU	Nt	Shrub	BLACK RASPBERRY
0	RUMEX ACETOSELLA	0	FAC	Ad	P-Forb	FIELD SORREL
5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	LITTLE BLUESTEM
5	Scrophularia lanceolata	2	FACU+	Nt	P-Forb	EARLY FIGWORT
8	Selaginella rupestris	5	UPL	Nt	Fern	ROCK SELAGINELLA
1	Silene antirrhina	5	UPL	Nt	A-Forb	SLEEPY CATCHFLY
6	Sisyrinchium campestre	5	UPL	Nt	P-Forb	PRAIRIE BLUE-EYED GRASS
4	Smilacina racemosa	3	FACU	Nt	P-Forb	FEATHERY FALSE SOLOMON SEAL
3	Smilax hispida	0	FAC	Nt	W-Vine	BRISTLY GREEN BRIER
3	Solidago nemoralis	5	UPL	Nt	P-Forb	OLD FIELD GOLDENROD

4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	INDIAN GRASS
4	<i>Spermolepis inermis</i>	5	UPL	Nt	A-Forb	SMOOTH SCALESEED
3	<i>Sporobolus asper</i>	5	UPL	Nt	P-Grass	ROUGH DROPSEED
4	<i>Sporobolus cryptandrus</i>	4	FACU-	Nt	P-Grass	SAND DROPSEED
6	<i>Stipa spartea</i>	5	UPL	Nt	P-Grass	PORCUPINE GRASS
9	<i>Talinum rugospermum</i>	5	UPL	Nt	P-Forb	FAME FLOWER
7	<i>Tephrosia virginiana</i>	5	UPL	Nt	P-Forb	GOAT'S RUE
1	<i>Toxicodendron radicans</i>	3	FACU	Nt	W-Vine	POISON IVY
3	<i>Tradescantia ohioensis</i>	2	FACU+	Nt	P-Forb	COMMON SPIDERWORT
1	<i>Tridens flavus</i>	5	UPL	Nt	P-Grass	COMMON PURPLETOP
2	<i>Triodanis perfoliata</i>	0	FAC	Nt	A-Forb	VENUS'S LOOKING GLASS
6	<i>Triplasis purpurea</i>	5	UPL	Nt	A-Grass	PURPLE SANDGRASS
0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	WOOLLY MULLEIN
2	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	HOARY VERVAIN
7	<i>Viola pedata</i>	5	UPL	Nt	P-Forb	BIRD'S FOOT VIOLET
2	<i>Vulpia octoflora</i>	-2	FACW-	Nt	A-Grass	SIX WEEKS FESCUE
4	<i>Zanthoxylum americanum</i>	5	UPL	Nt	Shrub	PRICKLY ASH

Site: Route 30
 Locale: Hill Prairie North
 By: William C. Handel/John Taft

FLORISTIC QUALITY DATA		Native	67	94.4%	Adventive	4	5.6%
67	NATIVE SPECIES	Tree	4	5.6%	Tree	0	0.0%
71	Total Species	Shrub	7	9.9%	Shrub	0	0.0%
4.9	NATIVE MEAN C	W-Vine	2	2.8%	W-Vine	0	0.0%
4.6	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
39.8	NATIVE FQI	P-Forb	38	53.5%	P-Forb	2	2.8%
38.7	W/Adventives	B-Forb	2	2.8%	B-Forb	0	0.0%
3.5	NATIVE MEAN W	A-Forb	2	2.8%	A-Forb	0	0.0%
3.4	W/Adventives	P-Grass	7	9.9%	P-Grass	1	1.4%
AVG:	Fac. Upland	A-Grass	1	1.4%	A-Grass	1	1.4%
		P-Sedge	3	4.2%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	1.4%			

C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
0	ACHILLEA MILLEFOLIUM	3	FACU	Ad P-Forb	COMMON MILFOIL
2	Ambrosia psilostachya	1	FAC-	Nt P-Forb	WESTERN RAGWEED
8	Amorpha canescens	5	UPL	Nt Shrub	LEAD PLANT
5	Andropogon gerardii	1	FAC-	Nt P-Grass	BIG BLUESTEM
4	Anemone canadensis	-3	FACW	Nt P-Forb	MEADOW ANEMONE
8	Anemone cylindrica	5	UPL	Nt P-Forb	CANDLE ANEMONE
4	Antennaria neglecta	5	UPL	Nt P-Forb	CAT'S FOOT
4	Antennaria plantaginifolia	5	UPL	Nt P-Forb	PUSSY TOES
7	Arabis lyrata	4	FACU-	Nt B-Forb	LYRE-LEAVED ROCK CRESS
0	Asclepias syriaca	5	UPL	Nt P-Forb	COMMON MILKWEED
1	Asclepias verticillata	5	UPL	Nt P-Forb	HORSETAIL MILKWEED
8	Besseyia bullii	5	UPL	Nt P-Forb	KITTEN TAILS
0	BROMUS TECTORUM	5	UPL	Ad A-Grass	CHEAT GRASS
9	Callirhoe triangulata	5	UPL	Nt P-Forb	CLUSTERED POPPY MALLOW
6	Carex meadii	4	FACU-	Nt P-Sedge	MEAD'S STIFF SEDGE
5	Carex muhlenbergii	5	UPL	Nt P-Sedge	SAND BRACKETED SEDGE
5	Carex pensylvanica	5	UPL	Nt P-Sedge	PENNSYLVANIA OAK SEDGE
7	Cirsium pumilum	5	UPL	Nt P-Forb	HILL'S THISTLE
2	Cornus racemosa	-2	FACW-	Nt Shrub	GRAY DOGWOOD
9	Dalea candida	5	UPL	Nt P-Forb	WHITE PRAIRIE CLOVER
8	Dalea purpurea	5	UPL	Nt P-Forb	PURPLE PRAIRIE CLOVER
2	Equisetum hyemale affine	-2	FACW-	Nt Fern	TALL SCOURING RUSH
2	Erigeron strigosus	1	FAC-	Nt P-Forb	DAISY FLEABANE
2	Fragaria virginiana	1	FAC-	Nt P-Forb	WILD STRAWBERRY
7	Helianthemum bicknellii	5	UPL	Nt P-Forb	ROCKROSE
5	Heterotheca camporum	5	UPL	Nt P-Forb	GOLDEN ASTER
7	Heuchera richardsonii v. grayana	1	FAC-	Nt P-Forb	PRAIRIE ALUMROOT
6	Hieracium longipilum	5	UPL	Nt P-Forb	LONG-BEARDED HAWKWEED
3	Juncus interior	-1	FAC+	Nt P-Forb	INLAND RUSH
1	Juniperus virginiana	3	FACU	Nt Tree	EASTERN RED CEDAR
7	Koeleria macrantha	5	UPL	Nt P-Grass	JUNE GRASS
4	Krigia virginica	5	UPL	Nt A-Forb	DWARF DANDELION
4	Lespedeza capitata	3	FACU	Nt P-Forb	ROUND-HEADED BUSH CLOVER
7	Liatris aspera	5	UPL	Nt P-Forb	ROUGH BLAZING STAR
7	Lithospermum carolinense	5	UPL	Nt P-Forb	HAIRY PUCCOON
8	Lithospermum incisum	5	UPL	Nt P-Forb	FRINGED PUCCOON
5	Monarda punctata	5	UPL	Nt P-Forb	HORSEMINT
9	Nothocalais cuspidata	5	UPL	Nt P-Forb	PRAIRIE DANDELION
5	Oenothera rhombipetala	3	FACU	Nt B-Forb	SAND PRIMROSE
10	Orobanche ludoviciana	5	UPL	Nt P-Forb	SOUTHERN BROOM RAPE
7	Panicum depauperatum	5	UPL	Nt P-Grass	STARVED PANIC GRASS
3	Panicum oligosanthos v. scribnerianum	3	FACU	Nt P-Grass	SCRIBNER'S PANIC GRASS
4	Panicum virgatum	-1	FAC+	Nt P-Grass	PRAIRIE SWITCH GRASS
2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	VIRGINIA CREEPER
6	Penstemon pallidus	5	UPL	Nt P-Forb	PALE BEARD TONGUE
0	POA PRATENSIS	1	FAC-	Ad P-Grass	KENTUCKY BLUE GRASS
10	Potentilla arguta	4	FACU-	Nt P-Forb	PRAIRIE CINQUEFOIL

Locale: Hill Prairie North cont.

C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
3	Prunus americana	5	UPL	Nt Tree	AMERICAN PLUM
5	Quercus velutina	5	UPL	Nt Tree	BLACK OAK
5	Ranunculus fascicularis	3	FACU	Nt P-Forb	EARLY BUTTERCUP
4	Rhus aromatica	5	UPL	Nt Shrub	AROMATIC SUMAC
1	Rhus glabra	5	UPL	Nt Shrub	SMOOTH SUMAC
1	Robinia pseudo-acacia	4	FACU-	Nt Tree	BLACK LOCUST

4	<i>Rosa carolina</i>	4	FACU-	Nt	Shrub	PASTURE ROSE
2	<i>Rubus allegheniensis</i>	2	FACU+	Nt	Shrub	COMMON BLACKBERRY
2	<i>Rubus occidentalis</i>	3	FACU	Nt	Shrub	BLACK RASPBERRY
0	RUMEX ACETOSELLA	0	FAC	Ad	P-Forb	FIELD SORREL
5	<i>Schizachyrium scoparium</i>	4	FACU-	Nt	P-Grass	LITTLE BLUESTEM
3	<i>Senecio pauperculus</i>	-1	FAC+	Nt	P-Forb	BALSAM RAGWORT
6	<i>Silene stellata</i>	5	UPL	Nt	P-Forb	STARRY CAMPION
6	<i>Sisyrinchium campestre</i>	5	UPL	Nt	P-Forb	PRAIRIE BLUE-EYED GRASS
4	<i>Smilacina racemosa</i>	3	FACU	Nt	P-Forb	FEATHERY FALSE SOLOMON SEAL
5	<i>Smilacina stellata</i>	1	FAC-	Nt	P-Forb	STARRY FALSE SOLOMON SEAL
4	<i>Sorghastrum nutans</i>	2	FACU+	Nt	P-Grass	INDIAN GRASS
7	<i>Tephrosia virginiana</i>	5	UPL	Nt	P-Forb	GOAT'S RUE
1	<i>Toxicodendron radicans</i>	3	FACU	Nt	W-Vine	POISON IVY
7	<i>Tradescantia virginiana</i>	5	UPL	Nt	P-Forb	VIRGINIA SPIDERWORT
7	<i>Trichostema brachiatum</i>	5	UPL	Nt	A-Forb	FALSE PENNYROYAL
5	<i>Triosteum perfoliatum</i>	5	UPL	Nt	P-Forb	LATE HORSE GENTIAN
2	<i>Verbena stricta</i>	5	UPL	Nt	P-Forb	HOARY VERVAIN
2	<i>Vulpia octoflora</i>	-2	FACW-	Nt	A-Grass	SIX WEEKS FESCUE

Site: Route 30
 Locale: Dry-mesic gravel prairie (limestone substrate)
 By: William C. Handel/John Taft

FLORISTIC QUALITY DATA		Native	54	79.4%	Adventive	14	20.6%
54	NATIVE SPECIES	Tree	2	2.9%	Tree	2	2.9%
68	Total Species	Shrub	3	4.4%	Shrub	1	1.5%
5.4	NATIVE MEAN C	W-Vine	2	2.9%	W-Vine	0	0.0%
4.3	W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
39.3	NATIVE FQI	P-Forb	33	48.5%	P-Forb	3	4.4%
35.0	W/Adventives	B-Forb	2	2.9%	B-Forb	4	5.9%
3.5	NATIVE MEAN W	A-Forb	1	1.5%	A-Forb	1	0.5%
3.6	W/Adventives	P-Grass	9	13.2%	P-Grass	3	4.4%
AVG: Fac. Upland		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	2	2.9%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	0	0.0%			

C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
0 ACHILLEA MILLEFOLIUM	3 FACU	Ad P-Forb	COMMON MILFOIL
4 Agrimonia pubescens	5 UPL	Nt P-Forb	SOFT AGRIMONY
8 Amorpha canescens	5 UPL	Nt Shrub	LEAD PLANT
8 Anemone cylindrica	5 UPL	Nt P-Forb	CANDLE ANEMONE
4 Antennaria neglecta	5 UPL	Nt P-Forb	CAT'S FOOT
5 Aquilegia canadensis	1 FAC-	Nt P-Forb	COLUMBINE
7 Arabis lyrata	4 FACU-	Nt B-Forb	LYRE-LEAVED ROCK CRESS
1 Asclepias verticillata	5 UPL	Nt P-Forb	HORSETAIL MILKWEED
7 Aster azureus	5 UPL	Nt P-Forb	SKY-BLUE ASTER
7 Aster oblongifolius	5 UPL	Nt P-Forb	AROMATIC ASTER
8 Besseyia bullii	5 UPL	Nt P-Forb	KITTEN TAILS
7 Bouteloua curtipendula	5 UPL	Nt P-Grass	SIDE-OATS GRAMA
9 Bouteloua hirsuta	5 UPL	Nt P-Grass	HAIRY GRAMA
0 BROMUS INERMIS	5 UPL	Ad P-Grass	HUNGARIAN BROME
0 CARDUUS NUTANS	5 UPL	Ad B-Forb	MUSK BRISTLE THISTLE
6 Carex meadii	4 FACU-	Nt P-Sedge	MEAD'S STIFF SEDGE
6 Carex umbellata	5 UPL	Nt P-Sedge	EARLY OAK SEDGE
9 Dalea candida	5 UPL	Nt P-Forb	WHITE PRAIRIE CLOVER
8 Dalea purpurea	5 UPL	Nt P-Forb	PURPLE PRAIRIE CLOVER
0 DAUCUS CAROTA	4 FACU-	Ad B-Forb	QUEEN ANNE'S LACE
5 Desmodium illinoense	5 UPL	Nt P-Forb	ILLINOIS TICK TREFOIL
6 Dodecatheon meadia	3 FACU	Nt P-Forb	SHOOTING STAR
2 Erigeron strigosus	1 FAC-	Nt P-Forb	DAISY FLEABANE
2 Eupatorium altissimum	3 FACU	Nt P-Forb	TALL BONESET
0 GALIUM MOLLUGO	5 UPL	Ad P-Forb	WHITE BEDSTRAW
9 Gentiana puberulenta	3 FACU	Nt P-Forb	DOWNY GENTIAN
2 Gleditsia triacanthos	0 FAC	Nt Tree	HONEY LOCUST
0 HESPERIS MATRONALIS	5 UPL	Ad P-Forb	DAME'S ROCKET
1 Juniperus virginiana	3 FACU	Nt Tree	EASTERN RED CEDAR
7 Linum medium texanum	3 FACU	Nt P-Forb	SMALL YELLOW FLAX
8 Lithospermum incisum	5 UPL	Nt P-Forb	FRINGED PUCCOON
4 Lobelia spicata	0 FAC	Nt P-Forb	PALE SPIKED LOBELIA
0 LONICERA MAACKII	5 UPL	Ad Shrub	AMUR HONEYSUCKLE
6 Lysimachia lanceolata	0 FAC	Nt P-Forb	LANCE-LEAVED LOOSESTRIFE
0 MACLURA POMIFERA	3 FACU	Ad Tree	HEDGE APPLE
0 MEDICAGO LUPULINA	1 FAC-	Ad A-Forb	BLACK MEDICK
10 Minuartia stricta	5 UPL	Nt P-Forb	ROCK SANDWORT
4 Monarda fistulosa	3 FACU	Nt P-Forb	WILD BERGAMOT
5 Monarda punctata	5 UPL	Nt P-Forb	HORSEMINT
5 Oenothera rhombipetala	3 FACU	Nt B-Forb	SAND PRIMROSE
3 Panicum oligosanthes v. scribnerian	3 FACU	Nt P-Grass	SCRIBNER'S PANIC GRASS
9 Panicum perlongum	5 UPL	Nt P-Grass	LONG-STALKED PANIC GRASS
4 Panicum virgatum	-1 FAC+	Nt P-Grass	PRAIRIE SWITCH GRASS
2 Parthenocissus quinquefolia	1 FAC-	Nt W-Vine	VIRGINIA CREEPER
6 Penstemon pallidus	5 UPL	Nt P-Forb	PALE BEARD TONGUE
0 POA COMPRESSA	2 FACU+	Ad P-Grass	CANADIAN BLUE GRASS
0 POA PRATENSIS	1 FAC-	Ad P-Grass	KENTUCKY BLUE GRASS
9 Polygonella articulata	5 UPL	Nt A-Forb	JOINTWEED

Locale: Dry-mesic gravel prairie (limestone substrate)cont.

C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
4 Ptelea trifoliata	2 FACU+	Nt Shrub	WAFER ASH
5 Ranunculus fascicularis	3 FACU	Nt P-Forb	EARLY BUTTERCUP
4 Ratibida pinnata	5 UPL	Nt P-Forb	YELLOW CONEFLOWER
4 Rhus aromatica	5 UPL	Nt Shrub	AROMATIC SUMAC

3	Ruellia humilis	4	FACU-	Nt	P-Forb	HAIRY RUELLIA
5	Schizachyrium scoparium	4	FACU-	Nt	P-Grass	LITTLE BLUESTEM
5	Scutellaria leonardii	3	FACU	Nt	P-Forb	SMALL SKULLCAP
3	Senecio pauperculus	-1	FAC+	Nt	P-Forb	BALSAM RAGWORT
6	Sisyrinchium campestre	5	UPL	Nt	P-Forb	PRAIRIE BLUE-EYED GRASS
1	Solidago canadensis	3	FACU	Nt	P-Forb	CANADA GOLDENROD
3	Solidago nemoralis	5	UPL	Nt	P-Forb	OLD FIELD GOLDENROD
4	Sorghastrum nutans	2	FACU+	Nt	P-Grass	INDIAN GRASS
6	Spiranthes magnicamporum	-3	FACW	Nt	P-Forb	GREAT PLAINES LADIES' TRESSES
9	Sporobolus heterolepis	4	FACU-	Nt	P-Grass	NORTHERN DROP SEED
6	Stipa spartea	5	UPL	Nt	P-Grass	PORCUPINE GRASS
1	Toxicodendron radicans	3	FACU	Nt	W-Vine	POISON IVY
0	TRAGOPOGON DUBIUS	5	UPL	Ad	B-Forb	SAND GOAT'S BEARD
0	ULMUS PUMILA	5	UPL	Ad	Tree	SIBERIAN ELM
0	VERBASCUM THAPSUS	5	UPL	Ad	B-Forb	WOOLLY MULLEIN
7	Viola pedata	5	UPL	Nt	P-Forb	BIRD'S FOOT VIOLET

Appendix 7-2
Addendum Floristic Quality Data

Site: Route 30
 Locale: Sedge Meadow (Wetland Site 103)
 By: William C. Handel

FLORISTIC QUALITY DATA		Native			Adventive		
50	NATIVE SPECIES	Tree	0	98.0%	Tree	0	2.0%
51	Total Species	Shrub	0	0.0%	Shrub	0	0.0%
4.2	NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
4.1	W/Adventives	H-Vine	2	3.9%	H-Vine	0	0.0%
29.6	NATIVE FQI	P-Forb	28	54.9%	P-Forb	0	0.0%
29.3	W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
-3.7	NATIVE MEAN W	A-Forb	4	7.8%	A-Forb	0	0.0%
-3.7	W/Adventives	P-Grass	5	9.8%	P-Grass	1	2.0%
AVG: Fac. Wetland (+)		A-Grass	0	0.0%	A-Grass	0	0.0%
		P-Sedge	10	19.6%	P-Sedge	0	0.0%
		A-Sedge	0	0.0%	A-Sedge	0	0.0%
		Fern	1	2.0%			

C	Scientific Name	WWetness	Origin	Physiognomy	Common Name
4	Anemone canadensis	-3 FACW	Nt	P-Forb	MEADOW ANEMONE
6	Angelica atropurpurea	-5 OBL	Nt	P-Forb	ANGELICA
3	Apios americana	-3 FACW	Nt	H-Vine	GROUND NUT
2	Apocynum cannabinum	0 FAC	Nt	P-Forb	DOGBANE
4	Asclepias incarnata	-5 OBL	Nt	P-Forb	SWAMP MILKWEED
0	Asclepias syriaca	5 UPL	Nt	P-Forb	COMMON MILKWEED
4	Aster novae-angliae	-3 FACW	Nt	P-Forb	NEW ENGLAND ASTER
4	Aster praealtus	-5 OBL	Nt	P-Forb	WILLOW ASTER
7	Aster puniceus	-5 OBL	Nt	P-Forb	SWAMP ASTER
1	Bidens aristosa	-3 FACW	Nt	A-Forb	SWAMP MARIGOLD
3	Calamagrostis canadensis	-5 OBL	Nt	P-Grass	BLUE JOINT GRASS
7	Caltha palustris	-5 OBL	Nt	P-Forb	MARSH MARIGOLD
5	Cardamine bulbosa	-5 OBL	Nt	P-Forb	BULB BITTERCRESS
8	Carex bebbii	-5 OBL	Nt	P-Sedge	BEBB'S OVAL SEDGE
6	Carex hystericina	-5 OBL	Nt	P-Sedge	PORCUPINE SEDGE
8	Carex interior	-5 OBL	Nt	P-Sedge	INLAND SEDGE
6	Carex lacustris	-5 OBL	Nt	P-Sedge	COMMON LAKE SEDGE
4	Carex lanuginosa	-5 OBL	Nt	P-Sedge	WOOLY SEDGE
5	Carex stricta	-5 OBL	Nt	P-Sedge	COMMON TUSsock SEDGE
7	Carex suberecta	-5 OBL	Nt	P-Sedge	PRAIRIE STRAW SEDGE
3	Carex vulpinoidea	-5 OBL	Nt	P-Sedge	BROWN FOX SEDGE
7	Chelone glabra	-5 OBL	Nt	P-Forb	WHITE TURTLEHEAD
0	Cyperus esculentus	-3 FACW	Nt	P-Sedge	FIELD NUT SEDGE
3	Eleocharis erythropoda	-5 OBL	Nt	P-Sedge	RED-ROOTED SPIKE RUSH
3	Epilobium coloratum	-5 OBL	Nt	P-Forb	CINNAMON WILLOW HERB
3	Erigeron philadelphicus	-3 FACW	Nt	P-Forb	MARSH FLEABANE
5	Eupatorium maculatum	-5 OBL	Nt	P-Forb	SPOTTED JOE PYE WEED
4	Eupatorium perfoliatum	-4 FACW+	Nt	P-Forb	COMMON BONESET
1	Eupatorium serotinum	-1 FAC+	Nt	P-Forb	LATE BONESET
4	Glyceria striata	-5 OBL	Nt	P-Grass	FOWL MANNA GRASS
3	Helenium autumnale	-4 FACW+	Nt	P-Forb	SNEEZEWEED
2	Helianthus grosseserratus	-2 FACW-	Nt	P-Forb	SAWTOOTH SUNFLOWER
2	Impatiens capensis	-3 FACW	Nt	A-Forb	SPOTTED TOUCH-ME-NOT
3	Leersia oryzoides	-5 OBL	Nt	P-Grass	RICE CUT GRASS
3	Lemna minor	-5 OBL	Nt	A-Forb	SMALL DUCKWEED
4	Lobelia siphilitica	-4 FACW+	Nt	P-Forb	GREAT BLUE LOBELIA
4	Muhlenbergia mexicana	-3 FACW	Nt	P-Grass	LEAFY SATIN GRASS
9	Pedicularis lanceolata	-4 FACW+	Nt	P-Forb	SWAMP BETONY
0	PHALARIS ARUNDINACEA	-4 FACW+	Ad	P-Grass	REED CANARY GRASS
5	Pycnanthemum virginianum	-4 FACW+	Nt	P-Forb	COMMON MOUNTAIN MINT
10	Saxifraga pensylvanica	-5 OBL	Nt	P-Forb	SWAMP SAXIFRAGE
3	Sicyos angulatus	-2 FACW-	Nt	H-Vine	BUR CUCUMBER

4	<i>Silphium perfoliatum</i>	-2	FACW-	Nt	P-Forb	CUP PLANT
1	<i>Solidago canadensis</i>	3	FACU	Nt	P-Forb	CANADA GOLDENROD
3	<i>Solidago gigantea</i>	-3	FACW	Nt	P-Forb	LATE GOLDENROD
5	<i>Sphenopholis obtusata</i>	0	FAC	Nt	P-Grass	PRAIRIE WEDGE GRASS
5	<i>Stachys palustris</i>	-5	OBL	Nt	P-Forb	WOUNDWORT
7	<i>Thelypteris palustris v. pubescens</i>	-4	FACW+	Nt	Fern	MARSH SHIELD FERN
1	<i>Typha latifolia</i>	-5	OBL	Nt	P-Forb	BROAD-LEAVED CATTAIL
3	<i>Verbena hastata</i>	-4	FACW+	Nt	P-Forb	BLUE VERVAIN
5	<i>Wolffia columbiana</i>	-5	OBL	Nt	A-Forb	WATER MEAL