

## Wetland Mitigation Site Assessment Survey Report For FAP 999, Mississippi Bridge Crossing, St. Clair County

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### Site References

This is a wetland mitigation site assessment survey conducted for the proposed Mississippi Bridge Crossing, FAP 999 project in St. Clair County. The following sources were examined while surveying the project area to determine wetland locations and boundaries: United States Geological Survey topographic map and National Wetland Inventory (NWI) map (Monks Mound, 7.5 minute quadrangle); *Soil Survey of St. Clair County, Illinois*; aerial photographs; *National List of Plant Species That Occur In Wetlands: Illinois*; the 1987 *Corps of Engineers Wetlands Delineation Manual*; and on-site vegetation, soils, topographic and hydrologic indicators. Three routine on-site wetland determinations were completed. Sites 1 and 3 satisfied the wetland criteria.

### Site Description

A wetland mitigation site assessment was completed on the Fairmount Golf Course in Fairmount City, IL. This site is located in the SW/4, Sec. 4, T. 2N., R. 9W (Monks Mound quad). This site occurs on the Old Cahokia Creek floodplain. Presettlement environment consisted of a wet floodplain forest. This area now harbors a golf course. Old Cahokia Creek swings into the north part of the golf course. Marsh/wet meadow wetlands border the course on the east, west and north sides while the highway sits to the south of the site. Two small wet meadow wetlands are located on the site and are described and located on the enclosed aerial photos. The majority of the site is an active golf course site which consists of non-native, non-hydrophytic vegetation.

### Hydrology

The hydrologic inputs at this site include precipitation, overflow from Old Cahokia Creek, and runoff from nearby higher areas. Water leaves the site by evapotranspiration and groundwater recharge. At the time of field investigation no drainage tile was located. Water table depth at the time of field investigation varied from at the surface in the small isolated wetland areas to 0.5 m in the golf course area. Personal correspondence with the owner of the golf course indicated that this site floods and remains underwater for an extended amount of time in the spring. Horseshoe Lake Outlet which feeds Old Cahokia Creek has a watershed of 85 km<sup>2</sup> (33 mi<sup>2</sup>). Old Cahokia Creek in the project area has a width of 30 m (100 ft), a depth less than 2 m and had a slow flow rate. This creek has a silt-gravel substrate. This project is located in the Mississippi River Tributaries (Hartford to Reily Lake) basin and has a USGS hydrologic unit code of 7140101.

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## Soils

Soil cores were taken throughout the site. The NRCS had Karnak silty clay soil (poorly drained and hydric) mapped at this site. Upon field investigation we verified that indeed Karnak is the soil at this site. Karnak formed as a hydric soil before presettlement times. The topographic position of this site makes it ideal as a possible wetland mitigation site. The NRCS rates this soil as good for potential for wetland plants and wetland wildlife.

## Vegetation

This site is a golf course except for two small wet meadows. The golf course area supports non-native non hydrophytic species. If not maintained, we believe that this site would be suitable for the establishment of hydrophytic vegetation. Hydrophytic species do exist in the wet meadows that had saturated/hydric soil. These areas would provide a viable possible seed source for a the golf course created wetland. The wet meadow areas are habitat for *Boltonia decurrens*, the decurrent false aster. *Boltonia decurrens* is an Illinois threatened species and is also listed as federally threatened. Nine plants were located in site 1, and a single individual was observed in site 3. However, it was not located in site 2, the managed golf course. Although it was not located at site 2 during this survey, we believe that if it were not maintained as a golf course, *Boltonia decurrens* would likely colonize and thrive in the area. *Boltonia decurrens* is known to spread rapidly in bare, wet ground. Conditions such as this are likely to occur if site 2 is acquired as a wetland mitigation site.

## Conclusion

Fairmount Golf Course area would seem to provide an excellent opportunity to establish a wetland. We believe this area has the hydrological conditions necessary to be a wetland mitigation site. There has been little if any change in the hydrology since this land was altered for human use. The soil is hydric and has a texture of silty clay loam to silty clay. This soil texture is ideal due to its low permeability, resulting in a high watertable or ability to pond water for a extend amount of time. Because of these conditions, no excavation would be necessary at this site. This site also has an excellent wetland seed source available not only due to the wetlands on the site but also due to the wetlands bordering this area. Creating a wetland on this site would extend the wetland area already nearby to a larger contiguous piece of land not only benefiting wildlife but also providing other large scale important wetland functions.

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### Floristic Quality Index

The Floristic Quality Index (FQI), developed by Swink and Wilhelm (1979) and modified by J. Taft, D. Ladd, G.S. Wilhelm, and L.A. Masters (*Erigenia*, 1997), was applied to the vegetation of each wetland. This index should not be used as a substitute for quantitative vegetation analysis in assessing plant communities, but it does provide a measure of the floristic integrity of each site. The FQI was calculated as follows:  $I = R/\sqrt{N}$ , where R represents the sum of the numerical ratings for all species native to Illinois recorded in the area, and N represents the number of recorded native species. The numerical rating for each species is shown in the species list for the site. The mean-rated quality also was determined by dividing the sum of numerical ratings for all native taxa by the number of recorded native taxa. FQI values of ten or less indicate low natural quality. Sites with FQI values of 20 or more (mean rated quality  $\geq 3.0$ ) possess some evidence of native character and may be considered environmental assets.

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Site 1: This wet meadow is located 122 m (400 ft) west of the Fairmount Golf Course clubhouse and 15 m (50 ft) north of Collinsville Road. Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present; thus, this site meets the three criteria of a wetland. The NWI coded this site as a PEMA (temporarily flooded, emergent, palustrine wetland) and PEMC (seasonally flooded, emergent, palustrine wetland). This site may function as a floodwater storage area and provide habitat for birds and small mammals. The FQI is 17.4 and the mean-rated quality is 2.9. These values are indicative of an above average natural quality. Nine plants of *Boltonia decurrens*, the decurrent false aster were located at this site. *Boltonia decurrens* is an Illinois threatened species and is also listed as federally threatened. This wet meadow comprises approximately 1.2 ha (3 acres) in the project area.

Site 2: This non-native grassland occupies most of the Fairmount Golf Course, 23 m (75 ft) north of Collinsville Road. Even though this site has hydric soils and wetland hydrology, it lacked dominant hydrophytic vegetation. Thus, we determined that this site is not a wetland. This site is actively maintained as a golf course. The NWI coded parts of this site as a PEMC (seasonally flooded, emergent, palustrine wetland). The FQI is 7.9 and the mean-rated quality is 1.8. These values are indicative of a poor natural quality.

Site 3: This wet meadow is located 53 m (175 ft) north of Collinsville Road and 274 m (900 ft) east of Fairmount Golf Course clubhouse. Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present; thus, this site meets the three criteria of a wetland. The NWI did not code this site. This site may function as a water storage area and provide habitat for birds and small mammals. The FQI is 12.7 and the mean-rated quality is 2.3. These values are indicative of an average natural quality. One plant of *Boltonia decurrens*, the decurrent false aster was located at this site. *Boltonia decurrens* is an Illinois threatened species and is also listed as federally threatened. This wet meadow comprises approximately 0.3 ha (0.7 acre) in the project area.

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1 (page 1 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999

**Job No.:** P 98-088-91

**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)

**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8

**Site Name:** Wet meadow

**Legal Description:** W/2, SW/4, Sec. 4 T. 2N., R. 9W.

**Location:** 122 m (400 ft) west of the Fairmount Golf Course clubhouse and 15 m (50 ft) north of Collinsville Road

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

### VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Eleocharis erythropoda</i>	OBL	herb
2. <i>Leersia oryzoides</i>	OBL	herb
3. <i>Polygonum hydropiperoides</i>	OBL	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: Karnak silty clay  
 On St. Clair County hydric soils list?      Yes:       No:   
 Is the soil a histosol?      Yes:       No:       Histic epipedon present?      Yes:       No:   
 Redox concentrations:      Yes:       No:       Redox depletions:      Yes:       No:   
 Matrix color: N 4/  
 Other indicators: This site was found in a depression to level area.

**Hydric soils:** Yes:       No:   
**Rationale:** Karnak silty clay meets the requirements of the Natural Resource Conservation Service hydric soil indicator F2, loamy gleyed matrix.

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1 (page 2 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Wet meadow  
**Legal Description:** W/2, SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** 122 m (400 ft) west of the Fairmount Golf Course clubhouse and 15 m (50 ft) north of Collinsville Road

### HYDROLOGY

**Inundated:**      Yes: X (in some areas)      No:      **Depth of standing water:** < 0.15 m (6 in)  
**Depth to saturated soil:** 0 to 0.3 m  
**Overview of hydrological flow through the system:** This site is hydrologically influenced by precipitation, overflow from Old Cahokia Creek, and sheet flow from higher surrounding areas. Water leaves the site via evapotranspiration and groundwater recharge.  
**Size of watershed:** 85 km<sup>2</sup> (33 mi<sup>2</sup>)  
**Other field evidence observed:** None

**Wetland hydrology:** Yes: X      No:

**Rationale:** Standing water indicates that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

### DETERMINATION AND RATIONALE:

<p><b>Is the site a wetland?</b></p> <p><b>Rationale for decision:</b></p>	<p>Yes: X      No:</p> <p>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 (temporarily flooded, emergent, palustrine wetland) and PEMC (seasonally flooded, emergent, palustrine wetland).</p>
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## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1-(page 3 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Wet meadow  
**Legal Description:** W/2, SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** 122 m (400 ft) west of the Fairmount Golf Course clubhouse and 15 m (50 ft) north of Collinsville 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>Ammannia coccinea</i>	long-leaved ammannia	herb	OBL	5
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster praealtus</i>	willow-leaved aster	herb	OBL	4
<i>Bidens cernua</i>	nodding beggar-ticks	herb	OBL	2
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Boltonia decurrens</i>	false aster	herb	OBL	4
<i>Carex hyalinolepis</i>	sedge	herb	OBL	4
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Cyperus ferruginescens</i>	-----	herb	OBL	1
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eclipta prostrata</i>	yerba de tajo	herb	FACW	2
<i>Eleocharis erythropoda</i>	-----	herb	OBL	3
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	fescue	herb	FACU-	**
<i>Hibiscus laevis</i>	halberd-leaved rose mallow	herb	OBL	4
<i>Hordeum jubatum</i>	fox-tail barley	herb	FAC+	**
<i>Ipomoea lacunosa</i>	small white morning-glory	herb	FACW	1
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lemna minor</i>	common duckweed	herb	OBL	3
<i>Ludwigia palustris americana</i>	marsh purslane	herb	OBL	4
<i>Ludwigia peploides glabrescens</i>	creeping primrose willow	herb	OBL	5
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Phleum pratense</i>	Timothy	herb	FACU	**
<i>Phyla lanceolata</i>	fog-fruit	herb	OBL	1
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	**
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3

(species list continued on following page)

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 1-(page 4 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Wet meadow  
**Legal Description:** W/2, SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** 122 m (400 ft) west of the Fairmount Golf Course clubhouse and 15 m (50 ft) north of Collinsville Road

### SPECIES LIST (concluded)

Scientific name	Common name	Stratum	Wetland indicator status	CC*
<i>Polygonum hydropiperoides</i>	mild water pepper	herb	OBL	4
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	**
<i>Populus deltoides</i>	eastern cottonwood	shrub	FAC+	2
<i>Rorippa islandica fernaldiana</i>	marsh yellow cress	herb	OBL	4
<i>Rumex crispus</i>	curly dock	herb	FAC+	**
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Scirpus tabernaemontanii</i>	great bulrush	herb	OBL	4
<i>Setaria glauca</i>	pigeon grass	herb	FAC	**
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sparganium eurycarpum</i>	burreed	herb	OBL	5
<i>Spirodela polyrhiza</i>	big duckweed	herb	OBL	5
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	**
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Wolffia columbiana</i>	common watermeal	herb	OBL	5

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

\*\* Non-native species

$$FQI = 106/\sqrt{37} = 106/6.1 = 17.4$$

$$\text{mean-rated quality} = 106/37 = 2.9$$

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## ROUTINE ON-SITE WETLAND DETERMINATION

Site 2 (page 1 of 2)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Non-native grassland  
**Legal Description:** SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** The majority of the Fairmount Golf Course, 23 m (75 ft) north of Collinsville Road

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

### VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Digitaria ischaemum</i>	FACU	herb
2. <i>Eleusine indica</i>	FACU	herb
3. <i>Plantago rugelii</i>	FAC	herb
4. <i>Trifolium repens</i>	FACU+	herb

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

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

### SOILS

Series and phase: Karnak silty clay  
 On St. Clair 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:      Redox depletions:      Yes: X      No:  
 Matrix color: N 4/ and N 5/  
 Other indicators: This site was found in a depressional to level area.

**Hydric soils:** Yes: X      No:  
**Rationale:** Karnak silty clay meets the requirements of the Natural Resource Conservation Service hydric soil indicator F2, loamy gleyed matrix.

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 2 (page 2 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Non-native grassland  
**Legal Description:** SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** The majority of the Fairmount Golf Course, 23 m (75 ft) north of Collinsville Road

### HYDROLOGY

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

Depth to saturated soil: At 0.5 m (20 in)

Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, overflow from Old Cahokia Creek, and sheet flow from higher surrounding areas. Water leaves the site via evapotranspiration and groundwater recharge.

Size of watershed: 85 km<sup>2</sup> (33 mi<sup>2</sup>)

Other field evidence observed: This site had a high water table.

**Wetland hydrology:** Yes: X      No:

**Rationale:** A high watertable and personal correspondence that this area floods every spring is evidence indicating that this site is inundated or saturated for a sufficient duration to satisfy the wetland hydrology criterion.

### DETERMINATION AND RATIONALE:

<b>Is the site a wetland?</b>	Yes:      No: X
<b>Rationale for decision:</b>	Even though this site has hydric soils and wetland hydrology, it lacked dominant hydrophytic vegetation. Thus, we determined that this site is not a wetland. This site is actively maintained as a golf course. The NWI coded parts of this site as a PEMC (seasonally flooded, emergent, palustrine wetland).

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 2-(page 3 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Non-native grassland  
**Legal Description:** SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** The majority of the Fairmount Golf Course, 23 m (75 ft) north of Collinsville Road

### SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC*
<i>Acer rubrum</i>	red maple	tree (planted)	FAC	--
<i>Acer saccharinum</i>	silver maple	tree (planted)	FACW	--
<i>Amaranthus tuberculatus</i>	tall waterhemp	herb	OBL	1
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Carduus nutans</i>	musk bristle thistle	herb	UPL	**
<i>Carex cephalophora</i>	sedge	herb	FACU	3
<i>Celtis occidentalis</i>	hackberry	shrub	FAC	3
<i>Chamaesyce supina</i>	milk spurge	herb	UPL	0
<i>Crataegus</i> sp.	hawthorn	shrub (planted)	---	--
<i>Cynodon dactylon</i>	bahama grass	herb	FACU	**
<i>Cyperus aristatus</i>	bearded flat sedge	herb	OBL	2
<i>Cyperus ferruginescens</i>	-----	herb	OBL	1
<i>Digitaria ischaemum</i>	smooth crab grass	herb	FACU	**
<i>Digitaria sanguinalis</i>	hairy crab grass	herb	FACU	**
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eclipta prostrata</i>	yerba de tajo	herb	FACW	2
<i>Eleocharis acicularis</i>	needle spike rush	herb	OBL	3
<i>Eleocharis erythropoda</i>	spike rush	herb	OBL	3
<i>Eleusine indica</i>	goose grass	herb	FACU	**
<i>Eriochloa contracta</i>	prairie cup grass	herb	FAC	**
<i>Festuca pratensis</i>	fescue	herb	FACU-	**
<i>Fraxinus pennsylvanica</i>	green ash	tree (planted)	FACW	--
<i>Ilex decidua</i>	swamp holly	shrub (planted)	FACW	--
<i>Juniperus virginiana</i>	eastern red cedar	tree (planted)	FACU	--
<i>Lepidium virginicum</i>	common peppergrass	herb	FACU-	0
<i>Liquidambar styraciflua</i>	red gum	tree (planted)	FACW	--
<i>Morus alba</i>	white mulberry	shrub	FAC	**
<i>Phyla lanceolata</i>	frog-fruit	herb	OBL	1
<i>Plantago lanceolata</i>	buckhorn	herb	FAC	**
<i>Plantago rugelii</i>	red-stalked plantain	herb	FAC	0
<i>Platanus occidentalis</i>	sycamore	tree (planted)	FACW	--
<i>Polygonum arenastrum</i>	knotweed	herb	UPL	**

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 2 (page 4 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Non-native grassland  
**Legal Description:** SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** The majority of the Fairmount Golf Course, 23 m (75 ft) north of Collinsville Road

### SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC*
<i>Polygonum hydropiperoides</i>	mild water pepper	herb	OBL	4
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	**
<i>Populus deltoides</i>	eastern cottonwood	tree (planted)	FAC+	--
<i>Portulaca oleracea</i>	purslane	herb	FAC-	**
<i>Quercus palustris</i>	pin oak	tree (planted)	FACW	--
<i>Rumex crispus</i>	curly dock	herb	FAC+	**
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix nigra</i>	black willow	shrub	OBL	3
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	**
<i>Setaria glauca</i>	pigeon grass	herb	FAC	**
<i>Taraxacum officinale</i>	common dandelion	herb	FACU	**
<i>Taxodium distichum</i>	bald cypress	tree (planted)	OBL	--
<i>Toxicodendron radicans</i>	poison ivy	shrub	FAC+	1
<i>Trifolium repens</i>	white clover	herb	FACU+	**
<i>Ulmus pumila</i>	Siberian elm	tree (planted)	UPL	**

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

\*\* Non-native species

$$FQI = 33/\sqrt{18} = 33/4.2 = 7.9$$

$$\text{mean-rated quality} = 33/18 = 1.8$$

Determined by: Dennis J. Keene (soils and hydrology)  
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## ROUTINE ON-SITE WETLAND DETERMINATION

Site 3 (page 1 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Wet meadow  
**Legal Description:** NE/4, SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** 53 m (175 ft) north of Collinsville Road and 274 m (900 ft) east of the Fairmount Golf Course clubhouse

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

### VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. <i>Leersia oryzoides</i>	OBL	herb
2. <i>Polygonum hydropiperoides</i>	OBL	herb
3. <i>Sagittaria latifolia</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: Karnak silty clay  
 On St. Clair 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:      Redox depletions:      Yes: X      No:  
 Matrix color: N 4/  
 Other indicators: This site was found in a depression to level area.

**Hydric soils:** Yes: X      No:  
**Rationale:** Karnak silty clay meets the requirements of the Natural Resource Conservation Service hydric soil indicator F2, loamy gleyed matrix.

**ROUTINE ON-SITE WETLAND DETERMINATION**

Site 3 (page 2 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
**Site Name:** Wet meadow  
**Legal Description:** NE/4, SW/4, Sec. 4 T. 2N., R. 9W.  
**Location:** 53 m (175 ft) north of Collinsville Road and 274 m (900 ft) east of the Fairmount Golf Course clubhouse

**HYDROLOGY**

**Inundated:**      Yes: X      No:      **Depth of standing water:** < 0.3 m (1 ft)

**Depth to saturated soil:** At surface

**Overview of hydrological flow through the system:** This site is hydrologically influenced by precipitation, overflow from Old Cahokia Creek, water pumped from a nearby ditch, and sheet flow from higher surrounding areas. Water leaves the site via evapotranspiration and groundwater recharge.

**Size of watershed:** 85 km<sup>2</sup> (33 mi<sup>2</sup>)

**Other field evidence observed:** None

**Wetland hydrology:** Yes: X      No:

**Rationale:** Standing water is evidence indicating 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 code this site.

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 3 (page 3 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
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### SPECIES LIST

Scientific name	Common name	Stratum	Wetland indicator status	CC*
<i>Acer saccharinum</i>	silver maple	tree, shrub	FACW	1
<i>Alisma plantago-aquatica</i>	broad-leaf water-plantain	herb	OBL	2
<i>Ambrosia trifida</i>	giant ragweed	herb	FAC+	0
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Boehmeria cylindrica</i>	false nettle	herb	OBL	3
<i>Boltonia decurrens</i>	false aster	herb	OBL	4
<i>Campsis radicans</i>	trumpet creeper	shrub	FAC	2
<i>Carex hyalinolepis</i>	sedge	herb	OBL	4
<i>Carex vulpinoidea</i>	fox sedge	herb	OBL	3
<i>Catalpa</i> sp.	catalpa	shrub	FACU	--
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	**
<i>Commelina diffusa</i>	day flower	herb	FACW	**
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Cyperus ferruginescens</i>	-----	herb	OBL	1
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Desmanthus illinoensis</i>	Illinois bundleflower	herb	FAC-	4
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eclipta prostrata</i>	yerba de tajo	herb	FACW	2
<i>Eleocharis erythropoda</i>	rush	herb	OBL	3
<i>Eupatorium serotinum</i>	late boneset	herb	FAC+	1
<i>Festuca pratensis</i>	fescue	herb	FACU-	**
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Hordeum jubatum</i>	fox-tail barley	herb	FAC+	**
<i>Iva annua</i>	marsh elder	herb	FAC	0
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Ludwigia peploides glabrescens</i>	creeping primrose willow	herb	OBL	5
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3

(species list continued on following page)

## ROUTINE ON-SITE WETLAND DETERMINATION

Site 3 (page 4 of 4)

**Field Investigators:** Keene and Ketzner      **Date:** August 4, 1999  
**Job No.:** P 98-088-91  
**Project Name:** FAP 999 (New River Crossing Mitigation Site, Fairmount City)  
**State:** Illinois      **County:** St. Clair      **Applicant:** IDOT District 8  
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### SPECIES LIST (concluded)

Scientific name	Common name	Stratum	Wetland indicator status	CC*
<i>Morus alba</i>	white mulberry	shrub	FAC	**
<i>Phyla lanceolata</i>	frog-fruit	herb	OBL	1
<i>Plantago lanceolata</i>	buckhorn	herb	FAC	**
<i>Poa pratensis</i>	Kentucky bluegrass	herb	FAC-	**
<i>Polygonum hydropiperoides</i>	mild water pepper	herb	OBL	4
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	**
<i>Rumex crispus</i>	curly dock	herb	FAC+	**
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix nigra</i>	black willow	shrub	OBL	3
<i>Setaria glauca</i>	pigeon grass	herb	FAC	**
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sparganium eurycarpum</i>	burreed	herb	OBL	5
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	**

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

\*\* Non-native species

$$FQI = 70/\sqrt{30} = 70/5.5 = 12.7$$

$$\text{mean-rated quality} = 70/30 = 2.3$$

Determined by: Dennis J. Keene (soils and hydrology)  
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An aerial photograph showing a wetland area. A survey grid is overlaid on the image, consisting of several intersecting lines. A winding waterway or channel is visible, crossing the grid. Several white circular markers are placed at various points along the grid lines and within the wetland area, likely indicating sampling locations. The terrain appears to be a mix of open water, marshland, and some cleared areas.

**WETLAND MITIGATION SITE-  
ASSESSMENT SURVEY**

FAP 999 (Mississippi River bridge crossing)  
St. Clair County

Wetland Sites: 1 and 3

North ↑ ↗

Scale: 10 mm = 48 m (1 in = 400 ft)